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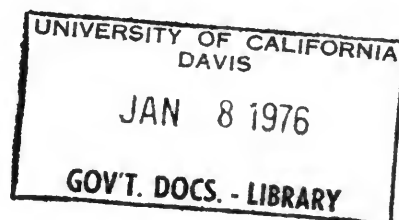
The Resources Agency

Department of Water Resources

BULLETIN No. 130-74

HYDROLOGIC DATA: 1974

Volume I: NORTH COASTAL AREA



DECEMBER 1975

CLAIRE T. DEDRICK
Secretary for Resources
The Resources Agency

EDMUND G. BROWN JR.
Governor
State of California

RONALD B. ROBIE
Director
Department of Water Resources

STATE OF CALIFORNIA
The Resources Agency
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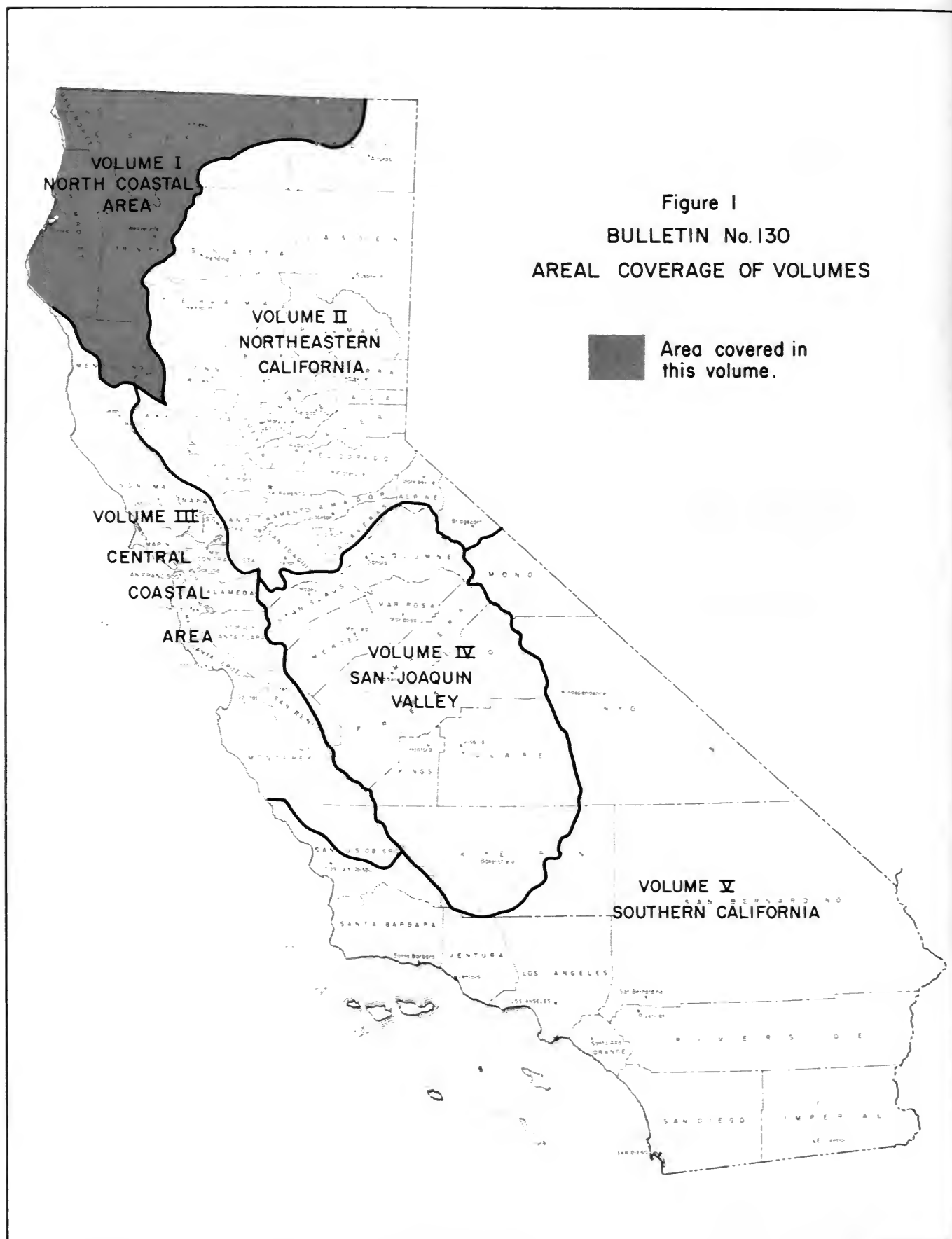
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CLAIRE T. DEDRICK
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FOREWORD

The hydrologic data programs of the Department of Water Resources supplement the data collection activities of other agencies and help satisfy the needs for data on the quality and quantity of water in the State. Bulletin No. 130-74 presents accurate, comprehensive, and timely hydrologic data which provide a more complete knowledge of the factors affecting our environment and are prerequisites for effective planning and operation of water facilities.

The Bulletin No. 130 series is published annually in five volumes. Each volume presents hydrologic data for one of five reporting areas of the State. These areas are delineated on the map on the opposite page.

Volume I contains data on climate, surface water flow, ground water levels, and surface and ground water quality in the North Coastal Area for the 1973-74 water year. Figures show hydrographic unit boundaries; ground water basins; and the location of climatological observation, surface water measurement, and surface water quality sampling stations.



Ronald B. Robie, Director
Department of Water Resources
The Resources Agency
State of California

CONVERSION FACTORS

English to Metric System of Measurement

<u>Quantity</u>	<u>English unit</u>	<u>Multiply by *</u>	<u>To get metric equivalent</u>
Length	inches (in)	25.4	millimetres (mm)
		.0254	metres (m)
	feet (ft)	.3048	metres (m)
	miles (mi)	1.6093	kilometres (km)
Area	square inches (in ²)	6.4516×10^{-4}	square metres (m ²)
	square feet (ft ²)	.092903	square metres (m ²)
	acres	4046.9	square metres (m ²)
		.40469	hectares (ha)
		.40469	square hectometres (hm ²)
		.0040469	square kilometres (km ²)
	square miles (mi ²)	2.590	square kilometres (km ²)
Volume	gallons (gal)	3.7854	litres (l)
		.0037854	cubic metres (m ³)
	million gallons (10 ⁶ gal)	3785.4	cubic metres (m ³)
	cubic feet (ft ³)	.028317	cubic metres (m ³)
	cubic yards (yd ³)	.76455	cubic metres (m ³)
	acre-feet (ac-ft)	1233.5	cubic metres (m ³)
		.0012335	cubic hectometres (hm ³)
		1.233×10^{-6}	cubic kilometres (km ³)
Volume/Time (Flow)	cubic feet per sec (ft ³ /s)	28.317	litres per second (l/s)
		.028317	cubic metres per sec (m ³ /s)
	gallons per minute (gal/min)	.06309	litres per second (l/s)
		6.309×10^{-5}	cubic metres per sec (m ³ /s)
	million gallons per day (mgd)	.043813	cubic metres per sec (m ³ /s)
Water Usage	acre-feet per acre	.3048	cubic metres per square metre (m ³ /m ²)
Mass	pounds (lb)	.45359	kilograms (kg)
	tons (short, 2,000 lb)	.90718	tonne (t)
		907.18	kilograms (kg)
Power	horsepower (hp)	0.7460	kilowatts (kW)
Pressure	pounds per square inch (psi)	6894.8	pascal (Pa)

* For greater accuracy, use conversion factors in "Metric Practice Guide"
(American Society for Testing and Materials, E 380-72).

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APPENDIX F: WASTE WATER DATA, which appeared in certain volumes of the Bulletin No. 130 series, has been discontinued. For information regarding waste water, the reader is referred to the recently reactivated Bulletin No. 68 series: "Inventory of Waste Water Production and Waste Water Reclamation Practices in California".	

ABSTRACT

The report contains tables showing data on surface water flow, ground water levels, and surface and ground water quality in the North Coastal area during the 1973-74 water year. Figures show the location of climatological stations, surface water measurement stations, surface water sampling stations, and ground water basins.

ACKNOWLEDGMENTS

Valuable assistance and contributions were received from several agencies and many private cooperators. The cooperation of the National Weather Service (formerly the U. S. Weather Bureau) and the U. S. Geological Survey was particularly helpful and is gratefully appreciated.

A special note of thanks is extended to the many loyal and dedicated weather observers whose unselfish efforts have contributed immeasurably to our knowledge of historical weather conditions in the North Coastal area.

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

THE RESOURCES AGENCY
Claire T. Dedrick, Secretary for Resources

DEPARTMENT OF WATER RESOURCES
Ronald B. Robie, Director
Robin R. Reynolds, Deputy Director

NORTHERN DISTRICT

Albert J. Dolcini Chief
Wayne S. Gentry Chief, Operations Branch
Robert G. Potter Chief, Planning Branch

Activities covered by this report were under the supervision
of

Robert F. Clawson Chief, Water Quality and Biology Section
Philip J. Lorens Chief, Geology and Ground Water Section
Robert R. McGill Chief, Land and Water Use Section
C. Wesley York Chief, Watermaster Service and Hydrology Section

Assisted by

Clyde K. Muir Associate Land and Water Use Analyst
Climatological Data

Seth K. Barrett Water Resources Technician II
Ground Water Measurements

Lee R. Gibson Water Resources Technician II
Water Quality

Reviewed and coordinated by
Division of Planning
Environmental Quality Branch
Water Resources Evaluation Section

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APPENDIX A
CLIMATOLOGICAL DATA

TABLE A-1

PRECIPITATION IN NORTH COASTAL AREA
DURING WATER YEAR 1973

Table A-1 summarizes monthly precipitation totals for selected stations for the 1974 water year, October 1, 1973, through September 30, 1974. The table shows stations by assigned number, name, and county. Location is defined by latitude and longitude in degrees to the third decimal, and stations are located on the map on the preceding page.

Precipitation values are shown to the nearest hundredth (.01) of an inch. Where digital recording rain gages are used, a zero is shown in the second decimal place, even though these instruments record to only the nearest tenth (.1) of an inch. The following notations are used to qualify the values:

- No record or incomplete record
- B Record began
- E Wholly or partially estimated
- N Record ends
- T Trace, an amount too small to measure

Precipitation data collected by the National Weather Service and local observers and cooperators in the North Coastal area are available in greater detail in other reports. The National Weather Service publishes a report entitled "Climatological Data for California" and a companion volume, "Hourly Precipitation Data". Department of Water Resources Bulletin No. 165, "Climatological Stations in California, 1971, Indexed by County", contains station information on both active and historical precipitation measurement stations.

In addition, evaporation data and daily climatologic data, including temperatures, together with local conditions and qualifying remarks, are available in the files of the Department of Water Resources.

The county codes (CO) used in Table A-1 are shown below:

<u>County</u>	<u>Code</u>
Del Norte	08
Glenn	11
Humboldt	12
Lake	17
Mendocino	23
Modoc	25
Siskiyou	47
Trinity	53

PRECIPITATION IN NORTH COASTAL AREA DURING WATER YEAR 1974

CO	STA NO	LAT	LONGIT	ELEV	STATION NAME	TOTAL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
12	F6 000800	40.183	123.600	435	ALDERPOINT	.00-	6.18	20.13	.00-	.00-	.00-	.00-	.00-	.25	.92	0.47	0.50	0.00
12	F5 025300	40.971	124.089	217	ARCATA A P	69.98	5.39	22.36	11.23	8.55	6.75	9.30	4.65	.71	.83	0.15	0.05	0.01
47	F2 076681	41.591	122.328	2955	BIG SPRINGS 4 E	13.10	3.07	2.82	1.35	1.76	.50	1.22	1.62	.00	.33	0.33	0.10	0.00
23	F6 104800	39.686	123.660	1480	BRANSCOMB 2 NW	127.93	8.14	33.86	16.89	21.94	11.99	23.66	8.60	.15	.45	1.83	0.34	0.00
12	F6 108000	40.516	123.816	2050	BRIDGEVILLE 4 NNW	104.29	8.99	29.97	18.52	15.11	10.27	14.07	5.58	.60	.15	0.55	0.48	0.00
	F6 108400					.00-	6.40	22.70	.00-	.00-	.00-	10.50	3.40	.50	.40	0.30	0.40	0.00
12	F6 110100	40.350	124.108	410	BULL CREEK	122.75	5.84	34.71	20.66	24.61	11.04	18.31	5.50	.56	.54	0.45	0.45	0.00
12	F6 121000	40.308	123.906	200	BURLINGTON ST PARK	107.60	6.49	32.40	15.94	21.32	9.02	14.39	4.21	.39	1.14	0.82	0.68	0.00
53	F4 121800	40.796	123.479	2150	BURNT RANCH 15	68.00	6.61	17.54	12.36	8.02	7.38	10.26	3.74	.29	.53	0.42	0.05	0.00
12	F5 123300	40.766	123.900	426	BUTLER VALLEY RANCH	73.49	7.14	19.16	11.64	8.25	9.79	10.12	5.95	.93	.29	0.10	0.12	0.00
47	F2 131600	41.300	122.000	3136	CALLAHAN RANGER STA	29.36	3.40	5.48	4.00	6.66	2.23	4.16	1.81	.14	.70	0.51	0.27	0.00
47	F3 160600	41.100	123.050	2980	CECILVILLE 5 SE	.00-	5.26	.00-	.00-	.00-	.00-	.00-	2.97	.56	.63	0.02	0.00	0.00
47	F2 179900	41.700	123.448	975	CLARE CREEK	100.51	8.21	26.03	18.12	17.85	10.41	13.89	4.05	.04	.11	0.20	0.00	0.00
53	F4 188600	41.083	122.700	2500	COFFEE CREEK RS	.00-	7.10	.00-	11.60	18.00	7.60	15.10	4.10	.10	1.20	2.30	0.30	0.00
47	F3 199000	41.983	122.333	2700	COPCO DAM NO 1	24.54	2.94	6.04	3.10	4.07	2.40	2.82	2.56	.08	.007	0.33	0.20	0.00
23	F6 208100	39.783	123.250	1385	COVELO	62.35	5.54	15.00	8.73	11.03	4.77	11.75	3.85	.27	.50	0.85	0.06	0.00
23	F6 208400	39.833	123.083	1514	COVELO EEL RIVER RS	.00-	.00-	15.10	8.50	.00-	6.10	10.10	2.30	.50	.00	0.90	0.00	0.00
08	F6 214700	41.766	124.200	40	CRESCENT CITY 1 N	93.81	6.07	31.25	14.68	12.37	11.06	12.92	3.20	.75	.85	0.68	0.08	0.00
08	F6 214800	41.800	124.083	120	CRESCENT CITY 7 ENE	123.28	7.98	41.72	21.01	14.61	14.19	14.42	6.10	.94	.85	0.63	0.03	0.00
08	F6 215000	41.766	124.200	50	CRESCENT CITY HMS	.00-	6.90	.00-	.00-	13.30	9.20	13.40	3.50	.70	1.00	0.00	0.00	0.00
08	F6 215200	41.755	123.991	360	CRESCENT CITY 11 E	159.38	10.48	50.39	26.50	23.39	18.10	19.95	7.24	2.10	.51	0.63	0.00	0.00
23	F6 221800	39.833	123.083	1270	CUMMINGS	114.87	8.19	30.56	15.08	21.55	10.06	20.51	6.30	.21	.35	1.10	0.16	0.00
47	F1 240000	41.955	121.908	4240	DORRIS INSPECT STA	19.66	2.27	4.31	1.47	1.75	1.20	3.14	1.23	.16	.34	1.02	0.67	0.00
08	F6 274900	42.000	123.716	1711	ELK VALLEY	.00-	6.98	39.59	23.33	17.05	13.98	15.99	.00-	2.07	.20	0.15	0.00	0.00
47	F2 289900	41.466	122.900	2912	ETNA	42.76	3.77	9.27	6.74	10.47	3.95	5.69	2.39	.06	.13	0.24	0.05	0.00
12	F6 291000	40.800	124.166	43	EUREKA WB CITY	51.05	4.14	16.58	7.02	6.02	5.98	6.98	3.15	.42	.33	0.11	0.32	0.007
12	F5 304100	40.943	124.018	285	FIELDBROOK 4 D RCH	95.80	10.10	28.45	14.50	10.75	12.15	15.15	2.20	1.10	.80	0.60	0.00	0.00
00	F3 312200	41.811	122.371	2960	FOOTHILL SCHOOL	19.83	2.90	4.40	2.09	2.84	1.70	2.98	2.14	.14	.02	0.62	0.00	0.00
53	F4 313000	40.383	123.333	2340	FOREST GLEN	109.91	7.59	30.14	16.80	20.25	8.60	20.31	3.93	.35	.67	1.01	0.26	0.00
08	F6 317300	41.866	124.150	46	FORT DICK	105.74	6.89	34.45	18.13	14.01	12.22	13.11	4.56	.59	1.15	0.58	0.05	0.00
47	F2 317600	41.583	122.716	3324	FORT JONES 6 ESE	31.80	3.50	6.50	3.50	7.80	2.50	4.10	2.40	.30	.20	0.70	0.30	0.00
47	F2 318200	41.600	122.850	2720	FORT JONES RANGER ST	34.20	3.86	7.17	5.15	7.13	2.62	3.33	3.92	.05	.14	0.79	0.04	0.00
12	F6 319400	40.600	124.150	60	FORTUNA	63.92	3.95	19.30	8.30	9.36	7.60	5.40	8.72	.33	.36	0.08	0.52	0.00
12	F6 321700	40.306	124.065	2500	FOX CAMP	136.26	13.60	37.66	20.64	25.33	11.98	20.41	6.17	.47	.00	0.00	0.00	0.00
12	F6 332000	40.100	123.000	340	GARBERVILLE	90.84	6.83	24.31	13.04	19.30	7.96	13.06	4.29	.09	.86	0.45	0.65	0.00
12	F6 332201	40.100	123.794	540	GARBERVILLE HMS	91.90	6.81	26.50	12.11	19.44	7.67	12.54	4.43	.11	1.05	0.55	0.69	0.00
08	F6 335700	41.866	123.966	384	GASQUET RANGER STA	136.51	7.40	45.96	22.89	17.95	16.88	18.63	6.50	1.24	.47	0.79	0.00	0.00
47	F2 361400	41.550	122.900	2918	GREENVIEW	37.40	3.70	7.07	5.05	11.47	3.37	4.36	1.50	.00	.20	0.68	0.00	0.00
47	F3 378100	41.800	123.383	1690	HAPPY CAMP RANGER STA	86.80	7.34	22.17	15.64	15.71	9.88	11.49	4.19	.05	.13	0.20	0.00	0.00
23	F6 378500	39.989	123.611	1910	HARRIS T SSE	102.76	7.24	26.97	13.86	18.74	10.95	18.25	4.74	.48	.54	0.64	0.35	0.00
53	F4 385900	40.550	123.166	2340	HAYFORK RANGER STA	55.03	3.95	11.30	11.01	10.69	4.32	8.60	2.52	.30	.56	0.96	0.02	0.00
47	F3 398700	42.000	122.633	2908	HILTS	33.53	3.07	6.83	4.38	8.55	2.33	6.78	.87	.49	.05	0.18	0.007	0.00
12	F4 408200	41.050	123.666	350	HOOPE	82.51	8.22	21.86	15.46	9.51	10.01	11.73	4.90	.37	.15	0.22	0.08	0.00
	F4 408900					.00-	8.18	23.50	13.44	.00-	.00-	.00-	3.53	.00-	.00	0.20	0.00	0.00
53	F4 419100	40.616	123.466	1260	HYAMPON	.00-	4.20	15.44	10.84	.00-	.00-	8.55	1.72	.00	.30	0.24	0.08	0.00
08	F6 420200	41.980	123.769	1250	IDLEWILD HMS	121.49	6.55	36.07	19.39	19.05	13.98	17.55	6.50	1.01	.39	0.20	0.00	0.00
08	F3 457700	41.516	124.033	25	KLAMATH	113.99	8.74	35.30	20.61	12.75	12.26	15.02	7.34	.85	.57	0.53	0.02	0.00
12	F6 458700	40.633	123.900	2356	KNEELAND 10 SSE	.00-	8.14	25.05	12.68	8.90	.00-	21.43	4.51	.73	.28	0.17	0.30	0.00
12	F6 460200	40.866	123.958	150	KORBEL	68.12	8.19	19.19	9.72	6.37	7.39	8.31	5.47	.94	1.62	0.36	0.36	0.00
47	F1 463600	41.729	121.508	4770	LAVA BEDS NAT MON	16.55	2.68	3.41	1.75	3.01	1.15	4.62	.48	.13	.02	1.03	0.47	0.00
23	F6 485100	39.780	123.483	1640	LAYTONVILLE	.00-	6.50	24.70	.00-	.00-	7.30	18.48	3.30	.20	.60	1.90	0.10	0.00
47	F2 490402	41.716	122.383	2725	LITTLE SHASTA	14.42	2.51	3.03	1.36	1.71	.99	2.05	1.12	.15	.32	0.82	0.36	0.00
53	F5 524400	40.450	123.533	2775	MAD RIVER RANGER STA	96.06	8.13	23.04	16.17	17.08	8.80	14.14	5.71	.00	.75	0.55	0.32	0.00
12	F6 571100	40.183	123.783	263	MIRANDA 4 SE	.00-	7.80	27.40	11.20	19.50	8.00	.00-	.00-	.00-	.00-	0.00	0.00	0.00
12	F6 571300	40.200	123.766	400	MIRANDA SPENGLER RCH	.00-	7.18	24.34	10.41	17.68	7.46	.00-	.00-	.21	1.05	0.35	0.50	0.00
47	F2 570300	41.728	122.526	2500	MONTAGUE	16.10	2.39	3.21	1.59	2.72	.78	2.07	2.27	.02	.09	0.77	0.19	0.00
47	F2 570500	41.750	122.466	2640	MONTAGUE 3 NE	.00-	2.40	3.96	1.70	3.40	1.20	2.60	2.00	.10	.10	0.70	0.00	0.00
47	F1 594100	41.783	122.000	4250	MOUNT MEBRON R S	13.31	2.82	3.55	1.49	1.17	.64	2.17	.65	.08	.05	0.07	0.62	0.00
12	F6 605000	40.261	123.866	190	MYERS FLAT	97.47	7.00	29.76	14.42	17.80	8.05	13.77	3.79	.15	1.24	1.10	0.39	0.00
47	F3 632900	41.633	123.850	1963	OAK KNOLL RS 2	42.68	3.92	9.95	5.07	9.31	4.58	6.27	2.84	.21	.11	0.42	0.00	0.00
12	F6 640800	40.683	123.661	2225	OLD HARRIS	107.10	8.59	29.47	15.45	14.00	9.68	16.93	10.38	.31	.79	1.02	0.48	0.00
12	F5 649701	41.323	124.041	50	ORICK 3 NNE	95.01	8.29	30.68	14.58	10.24	9.65	13.08	6.25	.79	.81	0.60	0.04	0.00
12	F5 649702	41.323	124.043	75	ORICK ARCATA REDWOOD	94.51	8.64	30.37	12.85	12.13	10.15	14.63	3.85	.69	.77	0.43	0.00	0.00
12	F5 649800	41.366	124.016	161	ORICK PRAIRIE CREEK	94.62	7.91	29.02	15.22	9.87	9.68	12.91	6.28	.00	1.39	0.42	0.32	0.00
12	F3 650800	41.300	123.533	403	ORLEANS	79.57	7.90	22.20	15.34	9.64	9.37	9.42	4.55	.32	.56	0.27	0.00	0.00
12	F3 651300	41.300	123.533	390	ORLEANS RS	.00-	7.70	21.20	14.20	10.60	7.80	10.20	3.70	.00-	.00-	0.00	0.00	0.00
12	F7 683501	40.324	124.279	175	PETROLIA	96.39	4.88	31.63	11.77	18.36	9.02	13.72	5.01	.40	.13			

TABLE A-2

STORAGE GAGE PRECIPITATION DATA

Table A-2 lists storage gages for which the seasonal accumulation of precipitation is reported. These gages are located in the remote mountain regions where no observers are available to operate conventional rain gages. Storage precipitation gages are tanks with capacity for storing an entire year's rainfall, along with antifreeze to melt frozen precipitation and oil to prevent evaporation losses. Once each year, in the summer or early fall, the precipitation that has accumulated since the last measurement is measured and then emptied out. With the addition of the proper amount of oil and antifreeze, the gage is ready to receive the next season's amount. Although logistics preclude conducting the measurement operation exactly at the end of the water year and exactly one year following the previous measurement, data from the gages fairly accurately depict the total precipitation for the water year.

TABLE A-2
STORAGE GAGE PRECIPITATION DATA
NORTH COASTAL AREA
(Measurements by the Department of Water Resources)

Station	Station Number	1973-74 Season	
		Measurement Period	Precipitation in Inches
NORTH COASTAL AREA			
<u>SMITH RIVER</u>			
Camp Six Lookout	1446	6-18-73 to 6-25-74	169.66
<u>LOST RIVER-BUTTE VALLEY</u>			
Bray 10 WSW	1050	6-19-73 to 6-26-74	No data ^{1/}
Crowder Flat	2188	6-27-73 to 6-19-74	21.91
Long Bell Station	5081-01	6-21-73 to 6-20-74	43.31
Medicine Lake	5505	6-21-73 to 8-29-74	83.27
<u>SHASTA-SCOTT VALLEYS</u>			
Gazelle Lookout	3363	6-19-73 to 6-27-74	26.95
<u>KLAMATH RIVER</u>			
Beswick 7S	0715	6-19-73 to 8-29-74	61.43
Blue Creek Mountain	0899	6-17-73 to 6-24-74	176.88
<u>TRINITY RIVER</u>			
Board Camp Mountain	0929	6-17-73 to 6-25-74	No data ^{1/}
Mumbo Basin	6032	6-20-73 to 6-27-74	102.16
<u>EEL RIVER</u>			
Plaskett	6976	6-14-73 to 6-3-74	84.20

^{1/} Vandalism.

APPENDIX B
SURFACE WATER MEASUREMENTS

This appendix presents surface water data for the 1974 water year, the period from October 1, 1973 to September 30, 1974. The data consist of summary tables of monthly and annual unimpaired runoff from four major North Coastal streams and daily mean discharges at the Department's two North Coastal area gaging stations (see Figure B-1).

In addition to data collected and published by the Department of Water Resources in this appendix, the U. S. Geological Survey collects and publishes data from many additional gaging stations for the same report area. This work is done under a federal-state cooperative contract, or through cooperative arrangements with other local or government agencies. Major exportations from the North Coastal Area, made through the U. S. Bureau of Reclamation's Judge Francis Carr Powerplant and the Pacific Gas and Electric Company's Potter Valley Powerhouse, are shown in the USGS report listed below. The data published in the following reports together with this report present a comprehensive analysis of the water resources for the area:

1. "Water Resources Data for California
Part I. Surface Water Records
Volume 1: Colorado River Basin, Southern Great
Basin, and Pacific Slope Basins excluding Central
Valley"
United States Department of the Interior, Geological
Survey
Prepared in cooperation with the California
Department of Water Resources and with other agencies.
2. Bulletin 120, "Water Conditions in California",
Fall Issue, Department of Water Resources.
3. Bulletin 157, "Index of Stream Gaging Stations in
and Adjacent to California, 1970". June 1971.
Department of Water Resources.

TABLE B-1 ANNUAL UNIMPAIRED RUNOFF

Unimpaired runoff is defined as the flow that would occur naturally at a point in a stream if there were: (1) no upstream controls such as dams or reservoirs; (2) no artificial diversions or accretions; and (3) no change in ground water storage resulting from development.

TABLE B-1
ANNUAL UNIMPAIRED RUNOFF

In Percent of Average

WATER YEAR	KLAMATH RIVER COPCO TO ORLEANS	SALMON RIVER AT SOMESBAR	TRINITY RIVER AT LEWISTON	EEL RIVER AT SCOTIA
Average Annual Runoff*	4,434	1,225	1,227	5,379
1921-22			64	69
1922-23			56	51
1923-24			22	16
1924-25			122	133
1925-26			66	61
1926-27			149	146
1927-28	86	89	86	86
1928-29	57	48	43	35
1929-30	-	63	66	65
1930-31	40	39	33	30
1931-32	76	85	59	67
1932-33	81	83	65	68
1933-34	49	47	56	46
1934-35	81	93	79	84
1935-36	90	93	83	107
1936-37	73	80	81	66
1937-38	179	182	171	200
1938-39	58	62	47	50
1939-40	102	104	131	136
1940-41	100	103	208	153
1941-42	104	108	147	138
1942-43	133	142	90	106
1943-44	62	52	53	42
1944-45	82	92	85	89
1945-46	117	124	115	112
1946-47	58	63	60	49
1947-48	96	101	98	88
1948-49	72	78	89	77
1949-50	92	96	70	77
1950-51	142	147	131	133
1951-52	149	159	148	149
1952-53	146	147	131	133
1953-54	138	131	129	129
1954-55	60	48	60	60
1955-56	186	179	165	190
1956-57	97	97	88	81
1957-58	184	184	219	217
1958-59	77	82	85	77
1959-60	78	77	84	87
1960-61	102	98	99	100
1961-62	74	78	85	73
1962-63	133	140	130	132
1963-64	90	92	65	64
1964-65	161	152	140	175
1965-66	101	91	110	96
1966-67	117	103	135	123
1967-68	76	77	82	79
1968-69	135	133	143	161
1969-70	143	130	130	139
1970-71	192	200	136	148
1971-72	142	148	94	87
1972-73	81	73	113	112
1973-74**	219	226	222	219

* Average annual unimpaired runoff in thousands of acre-feet adjusted to the 50-year period October 1920 through September 1970.

** Preliminary data subject to revision.

TABLE B-2
MONTHLY UNIMPAIRED RUNOFF

In Percent of Average

MONTH		KLAMATH RIVER COPCO TO ORLEANS	SALMON RIVER AT SOMESBAR	TRINITY RIVER AT LEWISTON	EEL RIVER AT SCOTIA
October	Percent	162	220	202	212
1973	Average	86	21	21	55
November	Percent	525	652	807	810
1973	Average	215	55	51	284
December	Percent	194	327	247	227
1973	Average	487	128	99	939
January	Percent	362	365	506	229
1974	Average	655	165	110	1225
February	Percent	111	115	85	64
1974	Average	607	158	149	1176
March	Percent	223	210	198	276
1974	Average	588	158	157	795
April	Percent	206	160	140	215
1974	Average	627	179	217	550
May	Percent	149	129	160	79
1974	Average	587	192	241	239
June	Percent	183	181	212	84
1974	Average	335	108	123	79
July	Percent	159	180	198	136
1974	Average	125	35	36	22
August	Percent	136	150	98	181
1974	Average	67	15	13	10
September	Percent	111	118	52	99
1974	Average	56	10	9	7
1973-74	Percent	219	226	222	219
Water Year	Average	4,434	1,225	1,227	5,379

Note: The percent values are preliminary data subject to revision. Average annual unimpaired runoff in thousands of acre-feet adjusted to the 50-year period October 1920 through September 1970.

TABLE B-3 DAILY MEAN DISCHARGE

A stream gaging station is named after the stream and the nearest post office. Each of the two gaging stations has been assigned an identification number, the letter and first digit of which denote the hydrographic unit; the remaining digits further identify the stations.

North Coastal Area

F0 - Smith River	F4 - Trinity River
F1 - Lost River-Butte Valley	F5 - Mad River
F2 - Shasta-Scott Valleys	F6 - Eel River
F3 - Klamath River	F7 - Mattole River

The discharges estimated for periods of no record or invalid record are shown with the letter "E". Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures in this table have been rounded off as follows:

1. Daily flows - cubic feet per second

0.0	- 9.9	nearest Tenth
10	- 999	" Unit
1,000	- 9,999	" Ten
10,000	- 99,999	" Hundred
100,000	- 999,999	" Thousand

2. Monthly means - cubic feet per second

0.0	- 99.9	nearest Tenth
100	- 9,999	" Unit
10,000	- 99,999	" Ten
100,000	- 999,999	" Hundred

3. Yearly totals - acre-feet

0.0	- 9,999	nearest Unit
10,000	- 99,999	" Ten
100,000	- 999,999	" Hundred
1,000,000	- 9,999,999	" Thousand

WATER YEAR	STATION NO.	STATION NAME
1974	F21300	LITTLE SHASTA RIVER NEAR MONTAGUE

WATER YEAR SUMMARY

MEAN	MAXIMUM					MINIMUM					TOTAL
DISCHARGE	DISCHARGE	GAGE HT.	MO.	DAY	TIME	DISCHARGE	GAGE HT.	MO.	DAY	TIME	ACRE FEET
341	251	3.23	1	15	2315	2.9	0.59	10	12	2215	20,580

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
41 45 11	122 17 58	NW15 45N 4W	5910 E	10.66	12/22/64	28-NOV 51 B APR 52-APR 55 SEP 56-DATE	28-NOV 51 B APR 52-APR 55 SEP 56-DATE	1956	1964	0.00	LOCAL
Station located S of Ball Mountain Road, 12 mi. NE of Montague, 16 mi. SW of Macdoel. Stage-discharge relationship affected by ice at times. Drainage area is 48.2 sq. mi.											
B - Irrigation season only.											

TABLE B-3 (CONT.)
DAILY MEAN DISCHARGE
(IN CUBIC FEET PER SECOND)

WATER YEAR	STATION NO.	STATION NAME
1974	F42100	NORTH FORK TRINITY RIVER NEAR HELENA

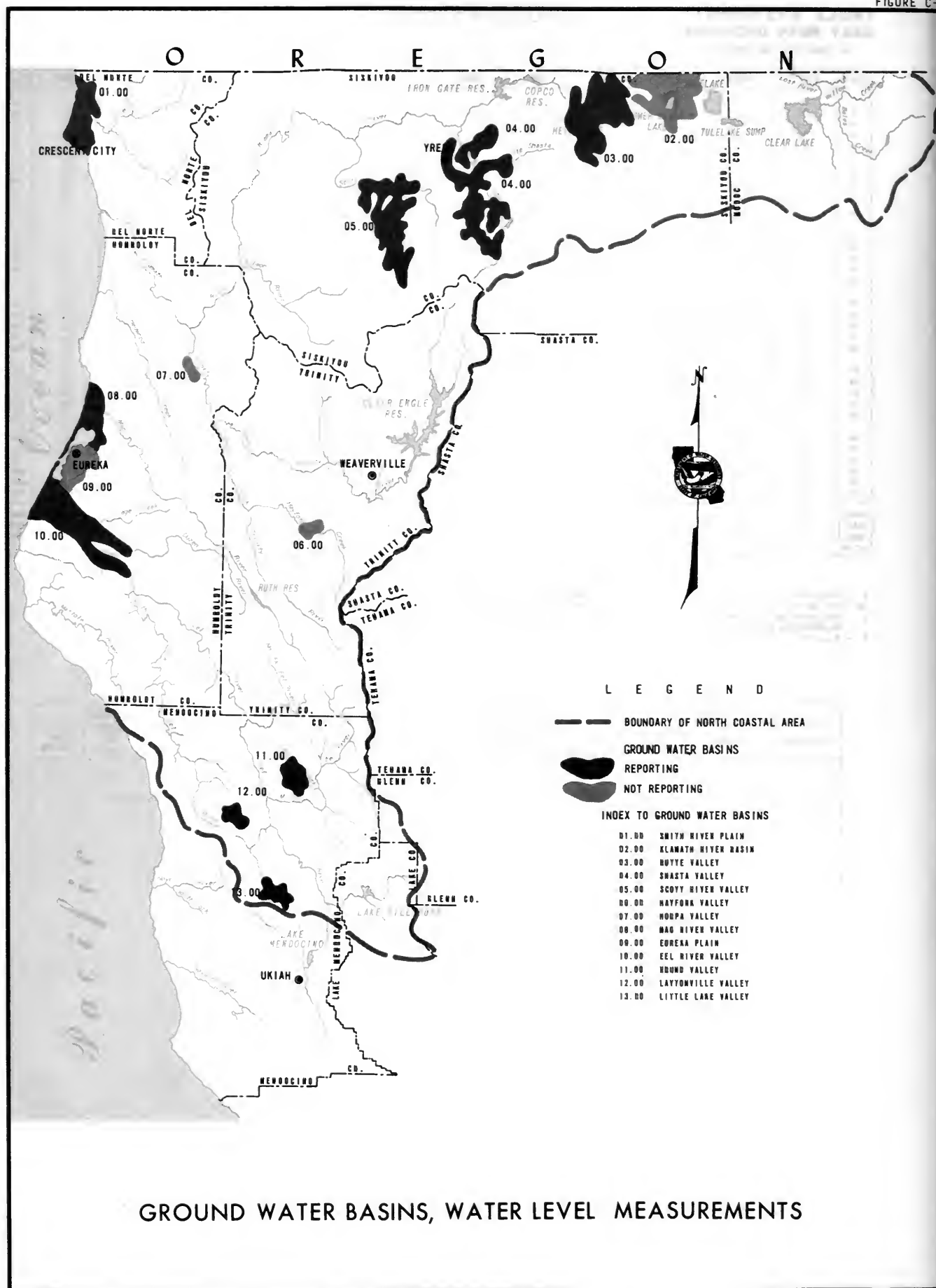
DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	DAY
1	33	216	3350	1270	672	2170	3600	942 *	607	246	100	40	1
2	31	175	1870	1060 *	642	1590	3120	931	637	240	99	39	2
3	29	146	1390	923	606	979	2810	891	643	234	93	38	3
4	29	137	1160	808	580	730 *	2730	931	618	232	92	37	4
5	27	321	1020	727	546	638	2660	999	712	226	99	36	5
6	37	1170	960	652	515	635	2590	1070	675	220	107	36	6
7	90	1630	1230	594	492	677	2510	1150	571 *	216	87	35	7
8	60	2620	1300	551	479	617	2430	1190	449	208	74	35	8
9	54	3070 *	1140	514	470	564	2360	1060	438	205	68	35 *	9
10	47	4030	1010	483	467	527	2280	871	488	198 *	64	35	10
11	42	6500	982	464	463	717	2210	824	549	191	63	35	11
12	38 *	3330	945	474	461	1050	2140	774	544	190	62	34	12
13	36	2030	1200	699	454	995	2070	673	481	177	58	34	13
14	34	1620	1120	2650	449	1010	2000	619	460	177	56 *	33	14
15	32	1720 *	993	10100	449	1210	1930	592	417	178	53	33	15
16	31	2560	952	16200	450	1240	1860	525	350	170	50	33	16
17	30	1930	1760	5920	445	1250	1780	470	328	174	50	32	17
18	29	1480	1520	3970 *	463	1230	1720	429	325	177	49	31	18
19	29	1170	1240	3500	722	1120	1650	395	366	189	49	31	19
20	35	1010	1790	2700	627	1060	1580	386	312	196	47	31	20
21	230	897	2700	2090	587	1000	1520	384	302	182	45	30	21
22	954	828	1910	1660	575	964	1450	413	297	166	43	29	22
23	1090	764	1470	1270	547	923	1380	453	292	141	43	28	23
24	641	759	1290	1090	523	899	1320	498	284	134	43	28	24
25	542	726	1440	972	540	994	1260	627	278	142	44	28 *	25
26	385	677	1350	865	598	998	1200	819	273	148	43	27	26
27	344	658	1490	784	631	1090	1140	853	266	143	41	27	27
28	363	833	1830	717	1490	1210	1090	753	262	137	40	27	28
29	302	2130	3200	659		4280	1030	681	256	122	40	27	29
30	246	4650	2200	613		6310	977	574	250	113	41	27	30
31	241		1600	639		3290		560		104	40		31
MEAN	197	1660	1529	2117	569	1354	1947	721	424	180	60.7	32.4	MEAN
MAX.	1090	6500	3350	16200	1490	6310	3600	1190	712	246	107	40	MAX.
MIN.	27	137	945	464	445	527	977	384	250	104	40	27	MIN.
AC. FT.	12120	98750	94040	130200	31620	83240	115800	44310	25250	11060	3735	1926	AC. FT.

WATER YEAR SUMMARY

E - ESTIMATED
NR - NO RECORD
* - DISCHARGE MEASUREMENT OR
OBSERVATION OF NO FLOW
- E AND *

MEAN DISCHARGE	MAXIMUM DISCHARGE	MAXIMUM GAGE HT.	MO.	DAY	TIME	MINIMUM DISCHARGE	MINIMUM GAGE HT.	MO.	DAY	TIME	TOTAL ACR. FEET
901	20,000	22.59	1	16	1015	27	5.69	10	5	2115	652,000

LOCATION			MAXIMUM DISCHARGE			PERIOD OF RECORD		DATUM OF GAGE			
LATITUDE	LONGITUDE	1/4 SEC. T. & R. M.D.B.&M.	OF RECORD			DISCHARGE	GAGE HEIGHT ONLY	PERIOD		ZERO ON GAGE	REF. * DATUM
			CFS	GAGE HT.	DATE			FROM	TO		
40 46 55	123 07 40	SW21 34N 11W	35800	27.93	12/22/64	JAN 57-DATE	JAN 57-DATE	1957		0.00	LOCAL
Station located 1.0 mi. above mouth, 0.6 mi. N of Helena. Stage-discharge relationship affected by ice at times. Drainage area is 151 sq. mi.											



APPENDIX C

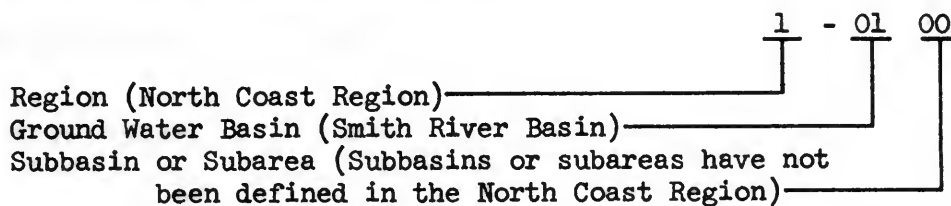
GROUND WATER MEASUREMENTS

This appendix contains ground water level measurements from 61 wells for the period October 1, 1973 through September 30, 1974. It also contains a table which summarizes the measurements. Wells in the network are continuously reviewed and, when conditions dictate, replacement wells are located and measured.

There are nine ground water basins in the North Coastal Region for which data are reported.

Two numbering systems are used by the Department to facilitate the processing of water level measurement data. The two systems are the Region and Basin Designation and the State Well Numbering System as described below.

The regions are those of the California Regional Water Quality Control Boards whose geographic areas are defined in Section 13200 of the Water Code. That portion of Northern California covered by this report is included in the North Coast Region. A decimal system of the form 0-00.00 has been selected according to geographic regions, ground water basins, and subbasins or subareas as follows:



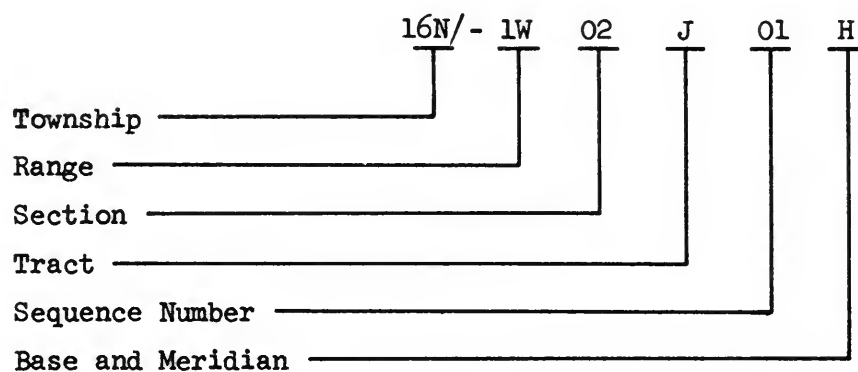
The State Well Numbering System is based on township, range, and section subdivisions of the Public Land Survey.

A section is divided into 40-acre tracts as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Sequence numbers in a tract are generally assigned in chronological order.

The number of a well, assigned in accordance with this system, is referred to as the State Well Number, as illustrated below:



This number identifies and locates the well. In the example, the well is in Township 16 North, Range 1 West, Tract J of Section 2, located in the Humboldt Base and Meridian.

TABLE C-1

AVERAGE CHANGE OF GROUND WATER LEVELS
AND SUMMARY OF WELL MEASUREMENTS REPORTED
NORTH COASTAL AREA

Ground Water Basin		Average Change	Measuring Agency	Number of Wells Reported	
		Spring 1973 to Spring 1974		Fall 1973	Spring 1974
Name	Number	in feet			

NORTH COASTAL REGION

Smith River Plain	1-01.00	+1.1	DWR	8	8
Butte Valley	1-03.00	+1.1	DWR	15	15
Shasta Valley	1-04.00	+2.3	DWR	9	9
Scott River Valley	1-05.00	+3.6	DWR	5	5
Mad River Valley	1-08.00	+1.0	DWR	3	3
Eel River Valley	1-10.00	+1.4	DWR	7	7
Round Valley	1-11.00	+0.7	DWR	5	5
Laytonville Valley	1-12.00	+1.3	DWR	4	4
Little Lake Valley	1-13.00	+2.0	DWR	5	5

DWR - Department of Water Resources

TABLE C-2 GROUND WATER LEVELS AT WELLS

An explanation of the column headings and the code symbols follows:

State Well Number - Refer to the explanation presented on page 17.

Ground Surface Elevation - The numbers in this column are the elevation in feet above mean sea level (USGS datum) of the ground surface at the well. Elevations are usually taken from topographic maps and the accuracy is controlled by topographic standards.

Date - The date shown in the column is the date when the depth measurement given in the next column was made.

Ground Surface to Water Surface - This is the measured depth in feet from the ground surface to the water surface in the well; some of the depth measurements in the column may be preceded by a number in parentheses to indicate a questionable measurement. The code applicable to these "questionable measurements" is as follows:

- | | |
|--------------------------------------|--|
| (1) Pumping | (6) Other |
| (2) Nearby pump operating | (7) Recharge operation at or near well |
| (3) Casing leaking or wet | (8) Oil in casing |
| (4) Pumped recently | (9) Caved or deepened measurement |
| (5) Air or pressure gage measurement | |

When a measurement was attempted, but could not be obtained, then only a number in parentheses is shown in the column. The code applicable to these "no measurements" is as follows:

- | | |
|-------------------------------|-------------------------------|
| (1) Pumping | (6) Well has been destroyed |
| (2) Pump house locked | (7) Special |
| (3) Tape hung up | (8) Casing leaking or wet |
| (4) Cannot get tape in casing | (9) Temporarily inaccessible |
| (5) Unable to locate well | (0) Measurements discontinued |

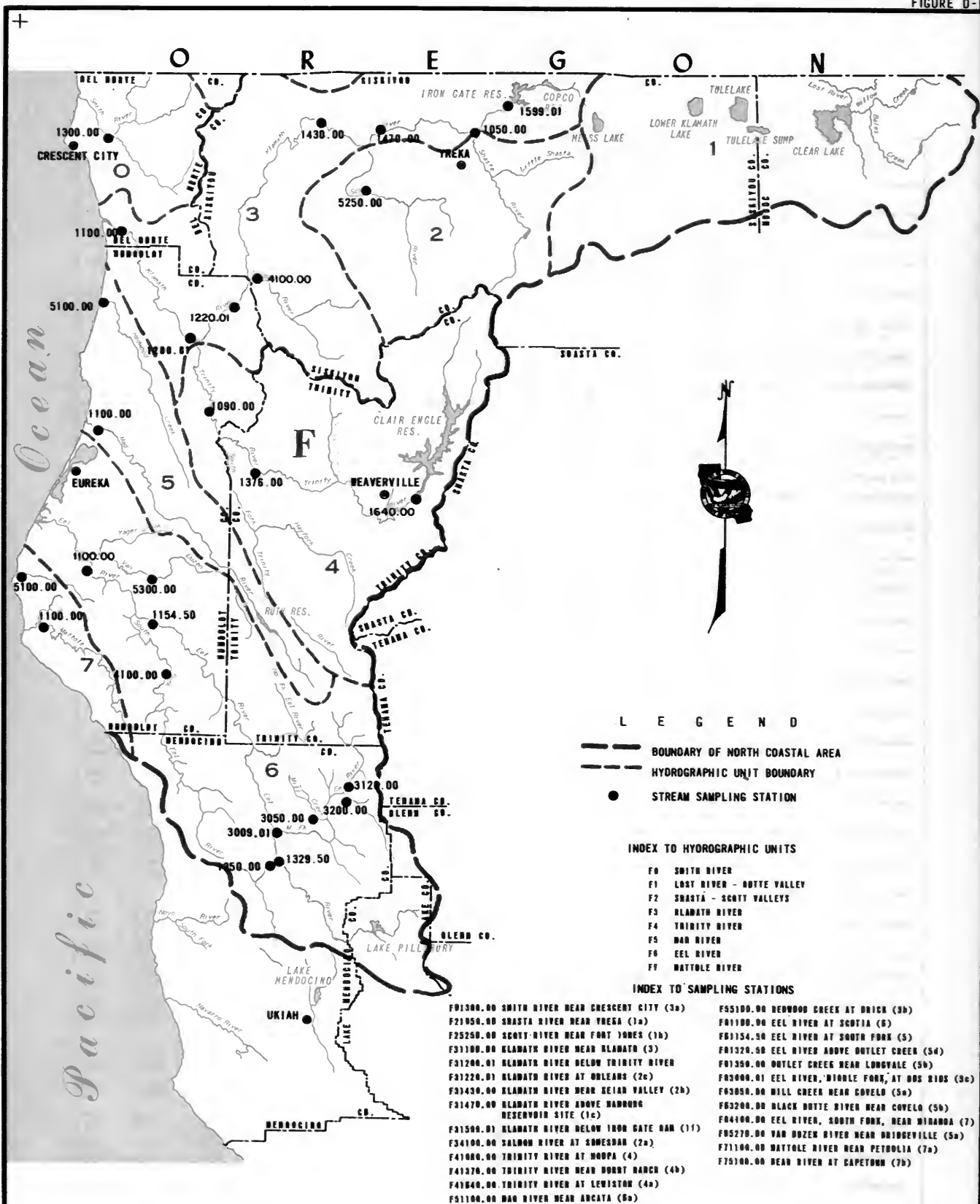
The words FLOW and DRY are shown in this column to indicate a flowing or dry well, respectively. A minus sign preceding the number in this column indicates that the static water level in the well is this distance in feet above the ground surface.

Water Surface Elevation - This is the elevation in feet above mean sea level (USGS datum) of the water surface in the well. It was derived by subtraction of the depth measurement from the ground surface elevation.

Agency Supplying Data - Each of these numbers is the code number for the agency supplying data for that measurement. The Department of Water Resources is the sole agency supplying ground water level measurement data for this report. It has been assigned an agency code number of 5050.

TABLE C-2
GROUND WATER LEVELS AT WELLS
NORTH COASTAL AREA

STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA	STATE WELL NUMBER	GROUND SURFACE ELEVATION IN FEET	DATE	GROUND SURFACE TO WATER SURFACE IN FEET	WATER SURFACE ELEVATION IN FEET	AGENCY SUPPLYING DATA
SMITH RIVER PLAIN 1-01.00						SCOTT RIVER VALLEY 1-05.00					
16N/01W-02J01 H	127.0	9-24-73 4-17-74	Dry 16.8	110.2	5050 5050	42N/09W-02A02 H	2746.0	10-09-73 4-10-74	12.2 4.0	2733.8 2742.0	5050 5050
16N/01W-17E01 H	48.0	9-24-73 4-17-74	22.1 9.6	25.9 38.4	5050 5050	42N/09W-27B01 H	2930.0	10-09-73 4-10-74	7.7 3.2	2922.3 2926.8	5050 5050
17N/01W-02P01 H	31.0	9-24-73 4-17-74	19.0 16.6	12.0 14.4	5050 5050	43N/09W-23P01 H	2728.0	10-09-73 4-10-74	6.7 1.9	2721.3 2726.1	5050 5050
17N/01W-03B01 H	14.0	9-24-73 4-17-74	13.4 9.7	0.6 4.3	5050 5050	43N/09W-24P01 H	2735.0	10-09-73 4-10-74	(1) 1.8	2733.2	5050 5050
17N/01W-15M02 H	21.0	9-24-73 4-17-74	16.6 6.6	4.4 14.4	5050 5050	44N/09W-28P01 H	2711.0	10-09-73 4-10-74	26.5 3.0	2684.5 2708.0	5050 5050
17N/01W-20Q01 H	15.0	9-24-73 4-17-74	6.0 1.5	9.0 13.5	5050 5050	MAD RIVER VALLEY 1-06.00					
17N/01W-27Q05 H	40.0	9-24-73 4-17-74	20.5 10.6	19.5 29.4	5050 5050	06N/01E-07M01 H	11.0	9-25-73 4-16-74	9.4 2.0	1.6 9.0	5050 5050
18N/01W-27P03 H	13.0	9-24-73 4-17-74	6.5 5.2	8.5 9.8	5050 5050	06N/01E-17D01 H	16.0	9-25-73 4-16-74	14.1 4.5	1.9 11.5	5050 5050
BUTTE VALLEY 1-03.00						06N/01E-29P01 H	25.0	9-25-73 4-16-74	9.6 6.4	15.4 18.6	5050 5050
45N/01W-06A01 M	4258.0	10-10-73 4-11-74	40.8 26.8	4217.2 4231.2	5050 5050	EEL RIVER VALLEY 1-10.00					
45N/02W-11P01 M	4275.0	10-10-73 4-11-74	54.8 38.7	4220.2 4236.3	5050 5050	02N/01W-08B01 H	34.0	9-25-73 4-16-74	23.2 11.2	10.8 22.8	5050 5050
46N/01E-06B01 M	4242.0	10-10-73 4-11-74	27.2 20.0	4214.8 4222.0	5050 5050	03N/01W-18D01 H	15.0	9-25-73 4-16-74	6.0 2.0	9.0 13.0	5050 5050
46N/01W-17B01 M	4246.0	10-10-73 4-11-74	45.2 33.5	4200.8 4212.5	5050 5050	03N/01W-30M01 H	19.0	9-25-73 4-16-74	17.2 10.2	1.8 8.8	5050 5050
46N/01W-18Q01 M	4247.0	10-10-73 4-11-74	34.5 16.9	4212.5 4230.1	5050 5050	03N/01W-34J01 H	53.0	9-25-73 4-16-74	36.0 29.8	17.0 23.2	5050 5050
46N/02W-25R02 M	4256.0	10-10-73 4-11-74	39.3 25.3	4216.7 4230.5	5050 5050	03N/02W-13J01 H	10.0	9-25-73 4-16-74	7.2 3.7	2.8 6.3	5050 5050
46N/02W-26Q01 M	4254.0	10-10-73 4-11-74	22.0 12.0	4232.0 4242.0	5050 5050	03N/02W-26R01 H	12.0	9-25-73 4-16-74	11.0 4.8	1.0 7.2	5050 5050
47N/01E-06A02 M	4244.5	10-10-73 4-11-74	34.4 30.5	4210.1 4214.0	5050 5050	03N/02W-35M02 H	13.0	9-25-73 4-16-74	10.8 6.2	2.2 6.8	5050 5050
47N/01E-20D01 H	4240.0	10-10-73 4-11-74	25.6 23.0	4214.2 4216.2	5050 5050	ROUND VALLEY 1-11.00					
47N/01W-04D01 M	4241.5	10-10-73 4-11-74	7.9 (9)	4233.6	5050	22N/12W-04B01 M	1351.0	10-03-73 4-18-74	15.4 5.7	1335.6 1345.3	5050 5050
47N/01W-04D02 H	4241.5	10-10-73 4-11-74	8.3 (9)	4233.2	5050	22N/12W-06L03 H	1370.0	10-03-73 4-18-74	7.0 -11.1	1363.0 1381.1	5050 5050
47N/01W-19L01 M	4238.0	10-10-73 4-11-74	6.0 1.7	4232.0 4236.3	5050 5050	22N/13W-12R01 M	1400.0	10-03-73 4-18-74	29.7 5.1	1370.3 1394.9	5050 5050
47N/01W-27B01 H	4233.0	10-10-73 4-11-74	9.0 6.0	4224.0 4227.0	5050 5050	23N/13W-36C03 M	1410.0	10-03-73 4-18-74	30.5 8.2	1379.5 1401.8	5050 5050
47N/01W-34Q01 H	4237.0	10-10-73 4-11-74	20.2 16.0	4216.8 4221.0	5050 5050	23N/13W-36Q01 M	1403.0	10-03-73 4-18-74	21.2 -0.5	1381.8 1403.5	5050 5050
48N/01W-26M01 M	4244.0	10-10-73 4-11-74	(2) (2)		5050 5050	LAYTONVILLE VALLEY 1-12.00					
SHASTA VALLEY 1-04.00						21N/14W-30M01 M	1688.0	10-03-73 4-17-74	16.7 3.7	1671.3 1684.3	5050 5050
42N/05W-20J01 M	2882.0	10-09-73 4-10-74	3.4 4.6	2878.6 2877.4	5050 5050	21N/15W-01L02 M	1682.0	10-03-73 4-17-74	39.0 4.0	1643.0 1678.0	5050 5050
42N/06W-10J01 M	2835.0	10-09-73 4-10-74	15.7 2.5	2819.3 2832.5	5050 5050	21N/15W-12M02 H	1630.0	10-03-73 4-17-74	16.7 3.5	1613.3 1626.5	5050 5050
43N/05W-11A01 M	2740.0	10-10-73 4-10-74	127.5 120.5	2612.5 2619.5	5050 5050	21N/15W-24A01 M	1653.0	10-03-73 4-17-74	11.9 2.2	1641.1 1650.8	5050 5050
43N/06W-15P03 M	2663.0	10-09-73 4-10-74	11.0 7.4	2652.0 2655.6	5050 5050	LITTLE LAKE VALLEY 1-13.00					
43N/06W-22A01 M	2665.0	10-09-73 4-10-74	28.0 6.7	2637.0 2658.3	5050 5050	18N/13W-08L01 M	1340.0	10-03-73 4-18-74	8.6 1.5	1331.4 1338.5	5050 5050
43N/06W-33C01 M	2810.0	10-09-73 4-10-74	51.2 49.6	2758.8 2760.4	5050 5050	18N/13W-17J01 M	1370.0	10-03-73 4-18-74	31.2 13.6	1338.8 1356.4	5050 5050
44N/05W-34B01 H	2637.0	10-10-73 4-10-74	28.4 28.0	2608.6 2609.0	5050 5050	18N/13W-18B01 M	1365.0	10-03-73 4-18-74	26.0 17.8	1339.8 1367.2	5050 5050
44N/06W-10P01 M	2537.0	10-09-73 4-10-74	20.2 24.0	2516.8 2513.0	5050 5050	19N/13W-32P01 M	1347.0	10-03-73 4-18-74	14.3 3.5	1332.7 1343.5	5050 5050
45N/06W-19B01 M	2538.0	10-09-73 4-10-74	22.0 13.0	2516.0 2523.0	5050 5050	19N/13W-32L02 H	1350.0	10-03-73 4-18-74	14.3 5.3	1335.7 1343.2	5050 5050



SURFACE WATER SAMPLING STATIONS

APPENDIX D

SURFACE WATER QUALITY

This appendix presents surface water quality data collected during the period from October 1, 1973, through September 30, 1974. The data were collected from 25 stream stations in the North Coastal area.

At the time of field sampling, dissolved oxygen, pH, and temperature measurements are made and gage height and time are noted. Comments on local conditions are noted in field books which are available in the files of the Department of Water Resources. The mineral constituents were determined in accordance with methods described in "Standard Methods for the Examination of Water and Waste Water", prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, 13th Edition, 1971.

Each station in this appendix has been assigned a station number. The numbering system is described in Appendix B, "Surface Water Measurements".

TABLE D-1
SAMPLING STATION DATA AND INDEX
North Coastal Area

Station	Station Number	Location*	Beginning of Record	Frequency of Sampling	Analyses on Page
BEAR RIVER AT CAPETOWN	F75100.00	01N/03W-13 H	MAY 1964	Annually	36
BLACK BUTTE RIVER NEAR COVELO	F63200.00	23N/11W-28 M	NOV. 1964	Monthly	34, 39, 45
EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS	F61329.50	21N/13W-32 M	APR. 1958	Monthly	32, 33, 39, 45
EEL RIVER AT SCOTIA	F61100.00	01N/01E-05 H	APR. 1951	Monthly	31, 32, 37, 39, 41, 45, 47
EEL RIVER AT SOUTH FORK	F61154.50	01S/02E-26 H	APR. 1951	Monthly	32, 39, 45, 47
EEL RIVER, MIDDLE FORK, AT DOS RIOS	F63009.01	21N/13W-06 M	APR. 1958	Monthly	33, 34, 39, 45
EEL RIVER, SOUTH FORK, NEAR MIRANDA	F64100.00	03S/04E-30 H	APR. 1951	Monthly	35, 39, 45
KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE	F31470.00	46N/10W-14 M	DEC. 1958	Bimonthly	29
KLAMATH RIVER AT ORLEANS	F31220.01	11N/06E-31 H	JAN. 1964	Monthly	28, 37, 43
KLAMATH RIVER BELOW IRON GATE DAM	F31599.01	47N/05W-20 M	DEC. 1961	Monthly	29, 30, 37, 43
KLAMATH RIVER NEAR KLAMATH	F31100.00	13N/02E-19 H	APR. 1951	Monthly	28, 37, 41, 43, 47
KLAMATH RIVER NEAR SEIAD VALLEY	F31430.00	46N/12W-03 M	DEC. 1958	Monthly	28, 29, 37, 43
MAD RIVER NEAR ARCATA	F51100.00	06N/01E-15 H	NOV. 1958	Bimonthly	31, 37, 43
MATTOLE RIVER NEAR PETROLIA	F71100.00	02S/02W-11 H	JAN. 1959	Annually	35
MILL CREEK NEAR COVELO	F63050.00	22N/12W-22 M	FEB. 1965	Monthly	34, 45
OUTLET CREEK NEAR LONGVALE	F61350.00	20N/14W-01 M	MAY 1958	Monthly	33, 39, 45
REDWOOD CREEK AT ORICK	F55100.00	10N/01E-04 H	NOV. 1958	Monthly	31, 37, 45, 47
SALMON RIVER AT SOMESBAR	F34100.00	11N/06E-03 H	NOV. 1958	Semiannually	30
SCOTT RIVER NEAR FORT JONES	F25250.00	44N/10W-28 M	DEC. 1958	Bimonthly	27, 37, 43, 47
SHASTA RIVER NEAR YREKA	F21050.00	46N/07W-24 M	DEC. 1958	Bimonthly	27, 37, 43, 47
SMITH RIVER NEAR CRESCENT CITY	F01300.00	16N/01E-10 H	APR. 1951	Monthly	27, 37, 43, 47
TRINITY RIVER AT HOOPA	F41080.00	08N/04E-25 H	APR. 1951	Monthly	30, 37, 43, 47
TRINITY RIVER AT LEWISTON	F41640.00	33N/08W-17 M	APR. 1951	Bimonthly	30, 31, 37, 43
TRINITY RIVER NEAR BURWT RANCH	F41376.00	05N/07E-19 H	APR. 1958	Bimonthly	30, 37, 43
VAN DUZEN RIVER NEAR BRIDGEVILLE	F65279.00	01N/02E-12 H	APR. 1958	Monthly	35, 39, 45, 47

* H = Humboldt Base and Meridian
M = Mount Diablo Base and Meridian

TABLE D-2 MINERAL ANALYSES OF SURFACE WATER

Lab and Sampler Agency Codes

5000 - U. S. Geological Survey
5050 - Department of Water Resources

Abbreviations

<u>TIME</u>	- Pacific Standard Time on a 24-hour clock.
<u>G.H.</u>	- Instantaneous gage height in feet above an established datum.
<u>Q</u>	- Instantaneous discharge measured in cubic feet per second (cfs). "E" indicates the value has been estimated.
<u>DEPTH</u>	- Depth at which sample was collected.
<u>DO</u>	- Dissolved oxygen content in milligrams per liter.
<u>SAT</u>	- Percent of normal dissolved oxygen saturation.
<u>TEMP</u>	- Water temperature in degrees Fahrenheit (F) and Celsius (C).
<u>PH</u>	- Measure of acidity or alkalinity of water.
<u>EC</u>	- Electrical conductance in micromhos at 25° C.
<u>TDS</u>	- Gravimetric determination of total dissolved solids at 180° C.
<u>SUM</u>	- Total dissolved solids by summation of analyzed constituents.
<u>TH</u>	- Total hardness.
<u>NCH</u>	- Noncarbonate hardness - any excess of total hardness over total alkalinity.
<u>TURB</u>	- Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hach Nephelometer (A). Field determination (F).
<u>SAR</u>	- Sodium adsorption ratio.
<u>PERCENT REACTANCE</u>	
<u>VALUE</u>	- Determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum.

Mineral Constituents

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO ₃	- Carbonate	NO ₃	- Nitrate
F	- Fluoride	SI0 ₂	- Silica
HCO ₃	- Bicarbonate	SO ₄	- Sulfate

TABLE D-2
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	B-H- Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TDS SUM	TH NCH	TURB SAF	REM	
							CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	SI02							
F0 1300.00 SMITH RIVER NEAR CRESCENT CITY																									
10/02/73 0655	5050 5050	8.06 389	12.2 116	55.4F 13.0C	7.4 7.6	141 142	--	--	2.5 .11 7	--	0 .00	80 1.31	--	2.8 .04	--	.00 --	--	--	--	--	--	74	04 0.1		
11/14/73 0810	5050 5050	20.95 27500	13.6 120	50.0F 10.0C	7.4 7.2	78 81	3.5 .17 19	7.7 .63 71	1.9 .08 9	.4 .01 1	0 .00	46 .75 87	1.8 .04 5	2.4 .07 8	.0 .00	.00 --	--	--	--	40 40	40 3	53A 0.1			
12/11/73 0810	5050 5050	14.26 8040	13.5 117	48.2F 9.0C	7.3	78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	124F			
01/15/74 1300	5050 5050	27.98 63900	13.8 121	49.1F 9.5C	7.6 7.5	63 67	--	--	1.5 .07 10	--	0 .00	38 .62	--	1.0 .03	--	.00 --	--	--	--	--	31	200A 0.1			
02/05/74 0705	5050 5050	13.25 5060	14.2 114	42.8F 6.0C	7.2	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54F			
03/05/74 0645	5050 5050	14.02 6740	14.0 120	47.3F 8.5C	7.3	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54F			
04/02/74 0700	5050 5050	20.94 26300	13.7 116	46.4F 8.0C	7.4 8.0	66	--	--	1.6 .07 10	--	0 .00	36 .59	--	2.0 .06	--	.00 --	--	--	--	--	32	48A 0.1			
05/14/74 0705	5050 5050	9.71 1590	12.3 109	50.0F 10.0C	7.4	91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
06/11/74 0735	5050	8.99 1040	9.6 98	61.7F 16.5C	7.6	101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
07/09/74 0635	5050	8.35 610	9.9 104	64.4F 18.0C	7.9	126	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
08/06/74 0720	5050	7.73 293.		68.0F 20.0C	7.5	147	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
09/04/74 0655	5050	7.56 238	9.0 97	66.2F 19.0C	7.5	154	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
F2 1050.00 SHASTA RIVER NEAR YREKA																									
11/15/73 0930	5050 5050	3.76 304	12.9 119	48.2F 9.0C	8.1	507	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	54F			
01/14/74 1305	5050 5050	4.80 740	11.4 100	44.6F 7.0C	8.2 7.4	354 394	23 1.15 29	22 1.81 46	21 .91 23	2.5 .06 2	0 .00	197 3.23 83	12 .25 6	11 .31 8	4.8 .06 2	.30	--	--	207 193	148 0	300A 0.4				
03/15/74 0905	5050 5050	4.41 564	11.5 106	48.2F 9.0C	8.1	445	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84F			
05/07/74 1120	5050 5050	3.68 272	9.4 111	65.3F 18.5C	8.2 8.3	410	--	--	21 .91 21	--	0 .00	238 3.90	--	12 .34	--	.30	--	--	--	176	34 0.7				
07/16/74 1230	5050	3.03 77	10.8 131	71.6F 22.0C	8.2	556	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
09/13/74 0820	5050	3.05 81	9.4 98	58.1F 14.5C	8.1	581	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24F			
F2 5250.00 SCOTT RIVER NEAR FORT JONES																									
11/15/73 1230	5050 5050	8.39 1810	12.8 115	44.6F 7.0C	7.2 7.4	109 107	9.0 .45 39	7.2 .59 52	2.0 .09 8	.4 .01 1	0 .00	61 1.00 90	2.1 .04 4	1.8 .05 5	1.2 .02 2	.00	--	--	80 54	52 2	16A 0.1	E T			
01/14/74 1525	5050 5050	9.57 2780	12.3 105	41.0F 5.0C	7.1	123	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	804F			
03/15/74 1145	5050 5050	8.02 1660	11.6 109	48.2F 9.0C	7.6	199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	304F			
05/07/74 1430	5050 5050	9.51 2850	10.5 107	54.5F 12.5C	7.5 7.5	106	--	--	1.7 .07 6	--	0 .00	61 1.00	--	.0 .00	--	.00	--	--	--	51	36A 0.1				
07/16/74 1505	5050		12.0 145	68.9F 20.5C	8.0	231	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F			
09/13/74 1100	5050 5050	5.22 74	10.9 124	63.5F 17.5C	8.1 8.2	308 308	33 1.65 49	18 1.48 44	5.0 .22 7	.9 .02 1	0 .00	181 2.97 90	8.6 .18 5	3.4 .10 3	3.8 .06 2	.10	--	--	168 162	156 8	04 0.2				

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					REM
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAR							
F3 1100.00 KLAMATH RIVER NEAR KLAMATH																										
10/02/73 0810	5050 5000	4.69 2580	10.8 10.9	59.9F 15.5C	7.8 8.1	219 216	21 1.05 46	9.1 .75 33	9.7 .42 19	1.6 .04 2	0 0.00	112 1.84 81	15 .31 14	4.6 .13 6	--	.09 17.0	.2	134 133	90 0	14 0.4						
11/13/73 1635	5050 5000		12.4 10.7	48.2F 9.0C	7.3 102 103	11 103	11 .55 51	4.7 .39 36	2.7 .12 11	.8 .02 2	0 0.00	57 .93 87	5.1 .11 10	1.0 .03 3	--	.02 13.0	.0	67 66	47 1	1004 0.2						
12/11/73 0935	5050 5000		12.9 10.5	43.7F 6.5C	7.4 127	13 127	13 .65 51	5.4 .44 34	4.0 .17 13	.7 .02 2	0 0.00	70 1.15 88	5.5 .11 8	1.8 .05 4	--	.03 16.0	.1	82 81	55 0	504 0.2						
01/15/74 0935	5050 5000		12.9 10.9	46.4F 8.0C	8.0 95	11 95	11 .55 53	4.1 .34 33	2.7 .12 12	.7 .02 2	0 0.00	49 .80 86	3.7 .08 9	1.6 .05 5	--	.03 12.0	.0	61 60	44 5	2004 0.2						
02/05/74 0855	5050 5000		13.1 10.5	42.8F 6.0C	7.5 144	14 144	14 .70 48	6.4 .53 36	4.9 .21 14	.9 .02 1	--	78 1.28	5.6 .12	2.6 .07	--	.03 18.0	.1	92	61	704 0.3						
03/05/74 0835	5050 5000		13.2 11.1	46.4F 8.0C	7.7 148	16 148	16 .80 51	6.7 .55 35	4.2 .18 12	1.0 .03 2	--	76 1.25	6.9 .14	2.1 .06	--	.03 17.0	.1	93	68	804 0.2						
04/02/74 0845	5050 5000		13.1 11.0	46.4F 8.0C	7.9 152 114	13 114	13 .65 52	5.1 .42 34	3.3 .14 11	1.0 .03 2	--	60 .98	4.6 .10	2.0 .06	--	.03 13.0	.1	73	54	1004 0.2						X
05/14/74 0915	5050 5000		11.5 10.5	52.7F 11.5C	6.3 122 119	13 119	13 .65 51	5.4 .44 34	3.8 .17 13	.9 .02 2	--	67 1.10	6.9 .14	2.2 .06	--	.03 14.0	.0	80	55	304 0.2						
06/11/74 0910	5050 5000		9.3 9.4	62.6F 17.0C	7.4 107 110	12 110	12 .60 50	5.3 .44 37	2.9 .13 11	.8 .02 2	--	61 1.00	4.6 .10	1.6 .05	--	.03 12.0	.0	70	52	204 0.2						
07/09/74 0750	5050 5000		8.9 9.2	62.6F 17.0C	7.5 149 154	17 154	17 .85 50	6.5 .53 31	6.9 .30 18	1.0 .03 2	--	84 1.38	7.8 .16	2.3 .06	--	.03 14.0	.0	97	69	14 0.4						
08/06/74 0830	5050 5000			215.3F 101.7C	76.0 1750 184	20 184	20 1.00 51	7.6 .63 32	6.3 .27 14	1.8 .05 3	--	100 1.64	8.5 .18	4.0 .11	--	70.0 16.0	.1	114	81	24 0.3						X
09/04/74 0810	5050 5000		8.5 9.3	68.0F 20.0C	7.9 206 203	22 203	22 1.10 52	7.2 .59 28	9.2 .40 19	1.6 .04 2	--	110 1.80	10 .21	4.4 .12	--	.08 18.0	.1	127	85	24 0.4						
F3 1220.01 KLAMATH RIVER AT ORLEANS																										
10/01/73 1105	5050 5050	0.58 1650	12.0 12.4	61.7F 16.5C	7.9 230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F						
11/13/73 1205	5050 5050	13.80 33600	13.1 11.2	46.4F 8.0C	7.3 100 105	11 105	11 .55 50	4.5 .37 34	3.4 .15 14	1.2 .03 3	0 0.00	54 .89 85	6.6 .14 13	.5 .01 1	.6 .01 1	.00	--	82 54	46 2	1004 0.2						E T
12/10/73 1225	5050 5050	10.28 19000	14.5 12.1	44.6F 7.0C	7.4 128	--	--	--	--	--	--	--	--	--	--	--	--	--	--	254F						
01/14/74 1245	5050 5050	10.86 50000E	14.2 11.8	44.6F 7.0C	8.2 112	--	--	--	--	--	--	--	--	--	--	--	--	--	--	904F						
02/04/74 1145	5050 5050	11.61 21300	14.2 11.4	41.9F 5.5C	7.7 147	--	--	--	--	--	--	--	--	--	--	--	--	--	--	404F						
03/04/74 1255	5050 5050	11.56 19500	14.5 12.2	45.5F 7.5C	7.5 160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	414F						
04/01/74 1145	5050 5050	19.72 75000	13.3 11.3	46.4F 8.0C	7.7 111	--	--	4.2 .18 15	--	0 0.00	63 1.03	--	1.2 .03	--	.00	--	--	50	2204 0.3							
05/13/74 1120	5050 5050	9.93 16100	12.1 11.2	52.7F 11.5C	7.5 110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	224F						
06/10/74 1055	5050 5050	8.32 11700	10.0 10.9	59.0F 15.0C	7.8 98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	44F						
07/08/74 1210	5050 5050	4.43 4120	9.5 9.9	62.6F 17.0C	7.7 144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24F						
08/05/74 1140	5050 5050	2.81 2500		74.3F 23.5C	7.9 178	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F						
09/03/74 1050	5050 5050	2.40 2250	9.3 10.9	73.4F 23.0C	7.9 205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F						
F3 1430.00 KLAMATH RIVER NEAR SEIAD VALLEY																										
10/15/73 1120	5050 5050		13.4 13.7	58.1F 14.5C	8.0 274 278	--	--	21 .91 34	--	0 0.00	135 2.21	--	6.9 .19	--	.10	--	--	90	14 1.0							
11/15/73 1105	5050 5050		13.0 11.6	47.3F 8.5C	8.1 181 180	14 180	14 .70 37	9.2 .76 40	9.4 .41 21	1.4 .04 2	0 0.00	93 1.52 64	8.2 .17 9	4.3 .12 7	--	.10	--	120 92	73 0	134 0.5						T

TABLE D-2 CONT
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TDS SUM	TH NCH	TUMH SAR	REM	
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	SI02	TD5	TH	TUMH	SAR	REM								
F3		1430.00	KLAMATH RIVER NEAR SEIAD VALLEY										CONTINUED																	
12/04/73 1325	5050 5050	6780	12.9 108	42.8F 6.0C	7.5 197	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	9AF	
01/14/74 1425	5050 5050	12300	12.5 102	41.0F 5.0C	7.4 160 159	-- --	-- --	8.4 .37 23	-- --	0 .00	82 1.34	-- --	2.5 .07	-- --	.10 --	-- --	-- --	-- --	-- --	61	110A 0.5	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	
02/05/74 1210	5050 5050	8930	14.1 115	41.0F 5.0C	7.5 189	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	20AF	
03/15/74 1030	5050 5050	9760	12.6 108	44.6F 7.0C	7.8 213	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	26AF	
04/16/74 1100	5050 5050	12700	11.7 107	49.1F 9.5C	7.9 178	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	36AF	
05/07/74 1320	5050 5050	9430	10.9 110	57.2F 14.0C	8.4 7.7 143	-- --	-- --	5.8 .25 17	-- --	0 .00	77 1.26	-- --	.5 .01	-- --	.00 --	-- --	-- --	-- --	-- --	59	23A 0.3	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	
06/05/74 1110	5050	5570	9.6 95	55.4F 13.0C	7.9 127	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	14AF	
07/16/74 1400	5050	1670	11.3 129	68.0F 20.0C	8.2 209	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
08/14/74 1130	5050	1420	10.2 118	68.9F 20.5C	8.2 203	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
09/13/74 1000	5050	1680	9.9 106	62.6F 17.0C	8.2 234	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
F3		1470.00	KLAMATH RIVER ABOVE HAMBURG RESERVOIR SITE																											
11/15/73 1020	5050 5050	2120E	12.5 112	47.3F 8.5C	7.8 252	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	74F	
01/14/74 1350	5050 5050	4660E	13.8 109	38.3F 3.5C	7.4 202	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	95AF	
03/15/74 0950	5050 5050	5680E	12.6 106	42.8F 6.0C	7.9 228	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	20AF	
05/07/74 1220	5050 5050	3510E	10.9 111	57.2F 14.0C	8.0 7.5 168	-- --	-- --	11 .48 27	-- --	0 .00	87 1.43	-- --	2.6 .07	-- --	.10 --	-- --	-- --	-- --	-- --	66	9A 0.6	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	
07/16/74 1315	5050	812E	11.0 132	71.6F 22.0C	8.2 220	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
09/13/74 0910	5050	1420E	8.8 99	64.4F 18.0C	8.0 233	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
F3		1599.01	KLAMATH RIVER BELOW IRON GATE DAM																											
10/15/73 0945	5050 5050	1340	10.1 105	57.2F 14.0C	7.5 250	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	
11/15/73 0845	5050 5050	1820	8.0 74	48.2F 9.0C	6.9 194	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF	
12/04/73 1140	5050 5050	3390	12.3 103	41.0F 5.0C	7.9 184	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	8AF	
01/14/74 1230	5050 5050	3920	13.5 107	37.4F 3.0C	7.2 183	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	28AF	
02/05/74 0950	5050 5050	5050	14.4 118	39.2F 4.0C	7.2 153	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	11AF	
03/15/74 0815	5050 5050	5120	13.7 127	48.2F 9.0C	7.6 201	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	15AF	
04/16/74 0920	5050 5050	6460	12.6 117	48.2F 9.0C	7.7 143	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	10AF	
05/07/74 1030	5050 5050	3240	10.6 110	57.2F 14.0C	7.6 7.5 146	-- --	-- --	11 .48 34	-- --	0 .00	67 1.10	-- --	1.4 .04	-- --	.10 --	-- --	-- --	-- --	-- --	47	6A 0.7	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	
06/05/74 0930	5050	845	8.6 94	61.7F 16.5C	8.2 145	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	44F	
07/16/74 1200	5050	735	13.7 161	68.0F 20.0C	8.3 166	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	24F	

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. D DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TURB SAR	REM
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F 5102	TDS SUM	TH NCH			
.....																					
F3		1599.01	KLAMATH RIVER BELOW IRON GATE DAM										CONTINUED								
08/14/74 0955	5050	1030	8.8 105	69.8F 21.0C	8.3 156	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24F	
09/13/74 0745	5050	1340	7.0 79	64.4F 18.0C	7.6 203	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24F	
F3		4100.00	SALMON RIVER AT SOMESBAR																		
10/01/73 1145	5050 5050	200	12.5 127	59.9F 15.5C	8.1 141	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F	
06/10/74 1135	5050 5050	7.18 3720	10.7 107	54.5F 12.5C	7.2 48	6.6 33 66	1.3 11 22	1.2 05 10	.4 01 2	0 00	26 43 96	.8 02 4	.0 00 00	.0 00 00	.00	--	37 23	22 1	54 0.1	E T S	
F4		1080.00	TRINITY RIVER AT HOOPA																		
10/01/73 1005	5050 5050	14.28 603	10.9 112	61.7F 16.5C	7.8 199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14F	
11/13/73 1305	5050 5050	25.09 22300	12.1 107	49.1F 9.5C	7.4 8.1	16 80 63	4.1 34 27	2.5 11 9	.8 02 2	0 00	64 105 88	4.9 10 8	1.4 04 3	--	.00	--	75 61	57 5	130A 0.1		
12/10/73 1115	5050 5050	19.97 7300	13.2 112	46.4F 8.0C	7.4 135	--	--	--	--	--	--	--	--	--	--	--	--	--	--	39AF	
01/14/74 1130	5050 5050	16.72 10000E	13.2 112	46.4F 8.0C	7.5 135	--	--	--	--	--	--	--	--	--	--	--	--	--	--	105AF	
02/04/74 1035	5050 5050	19.74 9000	13.8 113	43.7F 6.5C	8.3 144	--	--	--	--	--	--	--	--	--	--	--	--	--	--	52AF	
03/04/74 1145	5050 5050	22.39 14500	13.5 116	47.3F 8.5C	7.7 148	--	--	--	--	--	--	--	--	--	--	--	--	--	--	81AF	
04/01/74 1040	5050 5050	31.84 48700	12.9 109	45.5F 7.5C	8.3 8.1	--	--	2.2 10 9	--	0 00	63 103	--	1.6 05	--	.00	--	--	--	48	360A 0.1	
05/13/74 1005	5050 5050	18.37 8000	11.4 104	51.8F 11.0C	7.6 124	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18AF	
06/10/74 0935	5050	16.94 3800	9.4 96	61.2F 16.2C	7.6 126	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8AF	
07/08/74 1110	5050	1500	9.5 101	64.4F 18.0C	7.9 163	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	
08/05/74 1040	5050 5050	14.03 900		71.6F 22.0C	7.4 7.8	--	--	3.7 16 9	--	0 00	94 1.54	--	3.8 11	--	.00	--	--	--	83	1A 0.2	
09/03/74 0950	5050	13.79 580	9.7 107	68.0F 20.0C	8.0 204	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	
F4		1376.00	TRINITY RIVER NEAR BURNT RANCH																		
11/13/73 1030	5050 5050	11.4 5200	10.1	48.2F 9.0C	7.1 99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30AF	
01/14/74 1025	5050 5050	12.8 3270	10.8	44.6F 7.0C	7.4 139	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15AF	
03/04/74 1030	5050 5050	13.5 4480	11.4	44.6F 7.0C	7.5 154	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20AF	
05/13/74 0905	5050 5050	11.8 3170	11.0	51.8F 11.0C	7.4 7.5	--	--	2.7 12 12	--	0 00	56 92	--	1.4 04	--	.00	--	--	--	46	11A 0.2	
07/08/74 1010	5050	4950	9.7 102	61.7F 16.5C	7.9 120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	
09/03/74 0855	5050	356	9.1 103	68.0F 20.0C	8.2 158	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	
F4		1640.00	TRINITY RIVER AT LEWISTON																		
11/13/73 0845	5050 5050	3.43 320E	10.3 92	46.4F 8.0C	8.0 87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13AF	
01/14/74 0825	5050 5050	3.07 171	11.8 104	45.5F 7.5C	7.4 82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8AF	
03/04/74 0800	5050 5050	3.36 276	12.6 110	44.6F 7.0C	7.1 7.7	--	--	1.7 07 9	--	0 00	42 69	--	1.7 05	--	.00	--	--	--	35	37A 0.1	

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER					MILLIGRAMS PER LITER					REMARKS
						CA	MG	NA	K	CO3	PERCENT HCO3	SO4	CL	NO3	REACTANCE VALUE	H	F	TDS SUM	TH NCH	TURB SAH						
F4 1640.00 TRINITY RIVER AT LEWISTON CONTINUED																										
05/13/74 0715	5050 5050	5.09 1300	13.0 116	46.4F 8.0C	7.6 74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13AF
05/16/74 1235	5050 5050	5.40 120	13.2 120	47.3F 8.5C	7.3 74	3.6 .18 23	6.3 .52 66	1.6 .07 9	.9 .02 3	0 .00	44 .72 97	.6 .01 1	.5 .01 1	--	--	.10	--	43 35	35 0	12A 0.1						
07/08/74 0730	5050 5050	3.06 162	9.4 87	49.1F 9.5C	7.4 77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7AF
09/03/74 0725	5050 5050	3.28 215	11.6 105	47.3F 8.5C	8.1 76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF
F5 1100.00 MAD RIVER NEAR ARCATA																										
11/13/73 1455	5050 5050	12.78 13900	11.6 103	50.0F 10.0C	7.4 98	85 .70 69	14 .10 10	3.5 .15 15	2.9 .07 7	0 .00	45 .74 77	7.6 .16 17	1.4 .04 4	1.2 .02 2	.00	--	--	84 54	40 3	450A 0.2	E T S					
01/15/74 0730	5050 5050	12.4 18700	11.0 110	50.0F 10.0C	7.3 94	--	--	2.7 .12 12	--	0 .00	50 .82	--	.4 .01	--	--	.20	--	--	45	1300A 0.2						
03/04/74 1500	5050 5050	8.52 4400	13.1 110	46.4F 8.0C	7.4 93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	165AF
05/13/74 1350	5050 5050	4.49 276	11.5 116	60.8F 16.0C	8.2 158	--	--	4.4 .19 12	--	0 .00	80 1.31	--	1.9 .05	--	--	.00	--	--	72	3A 0.2						
07/08/74 1415	5050 5050	9.6 34	9.9 99	62.6F 17.0C	7.9 217	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
09/03/74 1320	5050 5050	10.6 47	11.8 118	69.8F 21.0C	8.2 197	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
F5 5100.00 REDWOOD CREEK AT ORICK																										
10/01/73 1430	5050 5050	5.06 64	10.8 115	65.3F 18.5C	7.4 220 218	--	--	6.4 .28 13	--	0 .00	89 1.46	--	5.0 .14	--	--	.10	--	--	96	1A 0.3						
11/13/73 1545	5050 5050	12.65 10500	12.1 107	50.0F 10.0C	7.3 68	8.9 .44 64	1.0 .08 12	2.8 .12 17	2.0 .05 7	0 .00	26 .43 63	8.4 .17 25	2.6 .07 10	.4 .01 1	.00	--	--	63 39	26 5	380A 0.2	E T					
12/11/73 1030	5050 5050	8.75 2800	12.7 110	48.2F 9.0C	7.2 70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	162AF
01/15/74 0830	5050 5050	11.10 6730	12.0 107	50.9F 10.5C	8.4 67	--	--	2.7 .12 19	--	0 .00	27 .44	--	1.6 .05	--	--	.10	--	--	26	320A 0.2						
02/04/74 1420	5050 5050	2.76 1500E	12.5 108	48.2F 9.0C	7.3 81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60AF
03/04/74 1600	5050 5050	8.89 2930	13.0 112	48.2F 9.0C	7.1 71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	90AF
04/01/74 1435	5050 5050	16.93 24200	12.3 107	49.1F 9.5C	7.4 57	--	--	3.0 .13 18	--	0 .00	27 .44	--	2.5 .07	--	--	.10	--	--	29	1600A 0.2						
05/13/74 1450	5050 5050	6.14 317	11.0 109	59.0F 15.0C	7.4 118	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF
06/10/74 1435	5050 5050	5.76 165	10.0 111	69.8F 21.0C	8.4 143	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
07/09/74 0840	5050 5050	5.52 105	9.2 91	59.0F 15.0C	7.2 162	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
08/05/74 1445	5050 5050	5.14 40		62.6F 17.0C	7.4 161	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
09/03/74 1415	5050 5050	5.00 23	10.7 117	68.0F 20.0C	7.9 160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF
F6 1100.00 EEL RIVER AT SCOTIA																										
10/02/73 1150	5050 5000	9.35 123	12.2 123	60.8F 16.0C	7.9 304 301	37 1.85 58	11 .90 28	9.2 .40 13	1.4 .04 1	0 .00	151 2.47 78	24 .50 16	6.8 .19 6	--	--	.01 7.5	.2	172 171	140 14	1A 0.3						
11/14/73 1400	5050 5000	12.1 71400	11.2 112	53.6F 12.0C	7.9 109 117	14 .70 58	3.6 .30 25	3.9 .17 14	1.1 .03 3	0 .00	59 .97 84	5.6 .12 18	2.3 .06 5	--	--	.06 11.0	.1		50 71	200A 2						
12/11/73 1415	5050 5000	12.5 14000	10.8 108	48.2F 9.0C	7.4 138	19 .95 61	4.7 .39 25	4.9 .21 13	.8 .02 1	0 .00	69 1.13 80	8.6 .18 13	4.0 .11 8	--	--	.04 11.0	.2	88 87	67 11	50A 0.3						
01/16/74 0905	5050 5000	12.5 321000	11.2 112	50.9F 10.5C	7.6 96	11 .55 55	3.0 .25 25	4.0 .17 17	1.2 .03 3	0 .00	53 .87 87	4.1 .09 9	1.5 .04 4	--	--	.03 7.6	.1	61 58	40 0	200A 0.3						

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER						TURB SAR	REM
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	B	F SIO2	TDS SUM	TH NCM				
.....																						
F6 1100.00 EEL RIVER AT SCOTIA						CONTINUED																
02/05/74	5050		12.1	47.3F	7.6	19	5.7	5.3	.9	--	82	9.1	2.6	--	.05	.1	96	71	80A			
1600	5000	8700	10.3	8.5C	164	.95 57	.47 28	.23 14	.02 1		1.34	.19	.07		12.0				0.3			
03/05/74	5050		12.3	47.3F	7.6	18	5.3	4.6	1.0	--	76	7.0	2.5	--	.04	.1	89	67	100A			
1335	5000	24800	10.5	8.5C	149	.90 57	.44 28	.20 13	.03 2		1.25	.15	.07		12.0				0.2			
04/02/74	5050		12.3	50.0F	8.0	143	13	3.2	3.6	1.0	--	57	4.9	1.7	--	.04	.1	67	46	600A	X	
1245	5000	98200	10.9	10.0C	108	.65 59	.26 24	.16 15	.03 3		.93	.10	.05		9.7				0.2			
05/14/74	5050		11.0	62.6F	8.3	188	23	6.3	5.1	1.0	--	98	12	3.0	--	.07	.1	110	84	10A		
1245	5000	11300	11.3	17.0C	183	1.15 60	.52 27	.22 11	.03 2		1.61	.25	.08		11.0				0.2			
06/11/74	5050		8.4	73.4F	7.9	227	29	7.7	5.9	1.3	--	121	13	3.4	--	.09	.1	130	100	1A		
1255	5000	1050	10.2	23.0C	229	1.45 61	.63 27	.26 11	.03 1		1.98	.27	.10		9.5				0.3			
07/09/74	5050		10.3	68.0F	8.1	279	41	9.8	7.0	1.4	--	155	19	4.3	--	.11	.1	170	140	1A		
1230	5000	540	10.9	20.0C	286	2.05 64	.81 25	.30 9	.04 1		2.54	.40	.12		10.0				0.3			
08/06/74	5050			70.7F	7.9	296	--	--	--	--	--	--	--	--	--	--					04F	
1225		240		21.5C																		
09/04/74	5050		10.3	64.4F	8.0	317	39	10	9.8	1.5	--	169	20	6.3	--	140	.1	179	140	1A		
1210	5000	150	10.8	18.0C	314	1.95 60	.82 25	.43 13	.04 1		2.77	.42	.18		8.4				0.4			
F6 1154.50 EEL RIVER AT SOUTH FORK																						
10/02/73	5050		12.0	63.5F	7.9	297	--	--	8.7	--	0	135	--	6.3	--	.20	--		130	0A		
1245	5050	74E	12.6	17.5C	7.9	296			.38 13		.00	2.21		.18		--			0.3			
11/14/73	5050		12.6	51.8F	8.3	105	17	3.0	3.5	2.1	0	63	7.4	.5	.6	.10	--	96	55	320A	E	
1500	5050	30400E	11.4	11.0C	8.0	121	.85 65	.25 19	.15 12	.05 4	.00	1.03 86	.15 13	.01 1	.01 1	--		65	4	0.2	T S	
12/11/73	5050		12.6	46.2F	7.5	132	--	--	--	--	--	--	--	--	--	--					54AF	
1510	5050	7670E	10.9	9.0C																		
02/06/74	5050		13.6	42.8F	7.6	162	--	--	--	--	--	--	--	--	--	--					59AF	
0840	5050	1200E	10.5	6.0C																		
03/05/74	5050		13.3	49.1F	7.9	133	--	--	--	--	--	--	--	--	--	--					162AF	
1430	5050	12300E	11.7	9.5C																		
04/02/74	5050		12.6	50.0F	8.2	--	--	3.4	--	0	59	--	.9	--	.10	--		49	650A			
1340	5050	42500E	11.2	10.0C	8.3	108		.15 13		.00	.97		.03		--				0.2			
05/14/74	5050		10.3	62.6F	7.7	170	--	--	--	--	--	--	--	--	--	--					15AF	
1350	5050	1880	10.6	17.0C																		
06/11/74	5050		8.3	75.2F	8.0	202	--	--	--	--	--	--	--	--	--	--					24F	
1315		636	9.8	24.0C																		
07/09/74	5050		9.7	69.8F	8.0	271	--	--	--	--	--	--	--	--	--	--					14F	
1335		220	10.1	21.0C																		
08/06/74	5050			73.4F	8.0	285	--	--	--	--	--	--	--	--	--	--					14F	
1315		96		23.0C																		
09/04/74	5050		9.4	69.8F	7.8	304	--	--	--	--	--	--	--	--	--	--					14F	
1255		48	10.5	21.0C																		
F6 1329.50 EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS																						
10/03/73	5050		11.4	60.8F	8.0	252	--	--	--	--	--	--	--	--	--	--					0AF	
0845	5050	4.8	11.9	16.0C																		
11/15/73	5050		11.2	53.6F	7.9	113	14	4.1	3.9	.9	0	61	8.9	.9	--	.10	--	75	52	110A		
1200	5050	4850	10.7	12.0C	7.8	120	.70 57	.34 28	.17 14	.02 2	.00	1.00 82	.19 16	.03 2	--	--		63	2	0.2		
12/12/73	5050		12.3	46.4F	7.5	120	--	--	--	--	--	--	--	--	--	--					31AF	
0945	5050	2090	11.1	8.0C																		
01/23/74	5050		12.7	44.6F	7.4	111	--	--	--	--	--	--	--	--	--	--					144AF	
1040	5050	3820	10.8	7.0C																		
02/06/74	5050		13.3	41.9F	8.2	132	--	--	--	--	--	--	--	--	--	--					69AF	
1205	5050	1120	10.9	5.5C																		
03/06/74	5050		11.9	50.0F	7.1	158	--	--	--	--	--	--	--	--	--	--					63AF	
1045	5050	3240	10.0	15.0C																		
04/03/74	5050		12.5	46.4F	7.6	--	--	3.7	--	0	55	--	1.2	--	.00	--		46	270A			
0810	5050	8290	10.9	8.0C	8.0	103		.16 15		.00	.90		.03		--				0.2			

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	NO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					REMARKS				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	TURB SAF											
.....																														
F6 1329.50		EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS															CONTINUED													
05/15/74 0805	5050 5050	311	10.2 104	59.0F 15.0C	7.9 183	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										6AF
06/12/74 0815	5050 5050	115	8.0 97	74.3F 23.5C	7.9 229	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
07/10/74 0745	5050 5050	143	8.4 95	68.0F 20.0C	8.0 233	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
08/07/74 0755	5050 5050	12		71.6F 22.0C	7.9 236	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
09/05/74 0720	5050 5050	7.5	7.1 80	68.0F 20.0C	8.2 229	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										0AF
F6 1350.00		OUTLET CREEK NEAR LONGVALE																												
10/03/73 0825	5050 5050	1.05 1.2	10.1 101	57.2F 14.0C	7.9 357	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
11/15/73 1225	5050 5050	5.12 1590	11.2 107	53.6F 12.0C	8.4 7.1	81 84	6.9 .34 38	4.1 .34 38	4.2 .18 20	1.0 .03 3	0 .00	.42 .69 81	3.4 .07 8	3.0 .08 9	.5 .01 1	.10	--	61 44	34 0	19A 0.3	E T									
12/12/73 0920	5050 5050	4.05 888	12.4 111	48.2F 9.0C	7.3 92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										33AF
01/23/74 1015	5050 5050	3.75 718	12.4 109	44.6F 7.0C	7.2 98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										18AF
02/06/74 1145	5050 5050	2.94 344	13.4 108	41.0F 5.0C	7.6 120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										7AF
03/06/74 1105	5050 5050	3.97 842	12.5 114	50.0F 10.0C	7.3 101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										14AF
04/03/74 0740	5050 5050	2760	11.9 106	48.2F 9.0C	7.3 8.0	75	--	--	3.5 .15 19	--	0 .00	.39 .64	--	2.8 .08	--	.10	--	--	--	--	32	95A 0.3								
05/15/74 0740	5050 5050	3.34 513	10.1 103	59.0F 15.0C	7.6 187	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
06/12/74 0755	5050 5050	2.61 230	7.3 86	71.6F 22.0C	7.9 234	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
07/10/74 0725	5050 5050	2.75 275	7.7 85	66.2F 19.0C	8.1 268	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
08/07/74 0735	5050 5050	2.48 192		73.4F 23.0C	8.0 275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
09/05/74 0700	5050 5050	2.39 169	8.1 90	66.2F 19.0C	8.0 293	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
F6 3009.01		EEL RIVER MIDDLE FORK AT DOS RIOS																												
10/03/73 0930	5050 5050	6.27 25	12.2 124	59.0F 15.0C	7.9 337	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										1AF
11/15/73 0800	5050 5050	13.08 7450	12.9 116	49.1F 9.5C	8.0 7.6	106 114	.15 .75 63	3.5 .29 24	3.0 .13 11	1.2 .03 3	0 .00	.58 .95 86	7.7 .16 14	.0 .00	--	.00	--	96 59	52 5	130A 0.2	E T									
12/12/73 1015	5050 5050	11.10 3440	13.7 114	43.7F 6.5C	7.8 130	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										51AF
01/23/74 1115	5050 5050	11.63 4370	13.5 111	42.8F 6.0C	7.6 8.1	143 151	--	--	3.4 .15 10	--	0 .00	.76 1.25	--	.9 .03	--	.00	--	--	--	68	240A 0.2									
02/06/74 1240	5050 5050	9.16 1220	14.1 112	40.1F 4.5C	7.8 176	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										48AF
03/06/74 0720	5050 5050	10.97 5040		46.4F 8.0C	7.9 156	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										108AF
04/03/74 0840	5050 5050	13.67 9030	13.3 113	44.6F 7.0C	7.8 8.1	124	--	--	3.4 .15 11	--	0 .00	.67 1.10	--	1.1 .03	--	.00	--	--	--	60	170A 0.2									
05/15/74 0835	5050 5050	9.72 1730	11.2 107	53.6F 12.0C	7.9 146	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										25AF
06/12/74 0845	5050 5050	8.57 793	8.7 98	68.0F 20.0C	7.8 175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										3AF

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO Sat	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TURB SAR	REM
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	S	F	TDS SUM	TH NCH									
F6 3009.01 EEL RIVER MIDDLE FORK AT DOS RIOS CONTINUED																											
07/10/74 0820	5050	7.29 549	9.0 99	65.3F 14.5C	7.9 247	--	--	--	--	--	--	--	--	--	--	--	--	--	--					2AF			
08/07/74 0820	5050	7.53 300		71.6F 22.0C	8.0 304	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
09/05/74 0745	5050	11.56 232	8.8 99	66.0F 20.0C	7.9 318	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
F6 3050.00 MILL CREEK NEAR COVELO																											
11/15/73 0915	5050 5050		11.1 103	50.9F 10.5C	8.1 7.9	108 114	12 .60 51	4.6 .38 32	3.9 .17 14	1.1 .03 3	0 .00	57 .93 45	6.1 .13 12	.9 .03 3	--	.00	--	71 57	49 3	70A 0.2							
12/12/73 1110	5050 5050		12.3 108	46.4F 8.0C	7.4 169	--	--	--	--	--	--	--	--	--	--	--	--	--	--					13AF			
01/23/74 1215	5050 5050		12.4 105	43.7F 6.5C	7.3 173	--	--	--	--	--	--	--	--	--	--	--	--	--	--					31AF			
02/06/74 1330	5050 5050		12.7 107	43.7F 6.5C	7.5 210	--	--	--	--	--	--	--	--	--	--	--	--	--	--					8AF			
03/06/74 0825	5050 5050		12.4 114	47.3F 8.5C	7.4 174	--	--	--	--	--	--	--	--	--	--	--	--	--	--					17AF			
04/03/74 0930	5050 5050		12.0 105	46.4F 8.0C	7.4 145 7.8 144	--	--	4.4 .19 13	--	0 .00	80 1.31	--	.9 .03	--	.00	--		65		110A 0.2							
05/15/74 0925	5050 5050		10.2 105	59.0F 15.0C	8.0 306	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
06/12/74 0940	5050		7.6 92	73.4F 23.0C	7.6 344	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
07/10/74 0905	5050 5050		7.1 80	67.1F 19.5C	7.4 327 8.2 331	--	--	9.8 .43 13	--	0 .00	187 3.06	--	5.0 .14	--	.10	--		150		0A 0.3							
F6 3200.00 BLACK BUTTE RIVER NEAR COVELO																											
10/03/73 1045	5050 5050		11.50 21	60.8F 16.0C	8.1 7.9	300 302	--	--	6.6 .29 9	--	0 .00	124 2.03 98	--	1.8 .05 2	.3 .00	.00	--	144		0A 0.2							
11/15/73 1010	5050 5050		13.50 596	50.0F 10.0C	8.4 7.6	110 116	17 .85 75	1.8 .15 13	2.8 .12 11	.8 .02 2	0 .00	54 .89 82	7.6 .16 15	.9 .03 3	--	.10	--	84 58	50 6	24A 0.2				E T			
12/12/73 1215	5050 5050		12.97 717	41.9F 5.5C	7.5 127	--	--	--	--	--	--	--	--	--	--	--	--	--	--					21AF			
01/23/74 1305	5050 5050		15.53 3960	43.7F 6.5C	8.0 140 8.2 151	--	--	3.2 .14 9	--	0 .00	71 1.16	--	.9 .03	--	.20	--		68		420A 0.2							
02/06/74 1420	5050 5050		15.52 3060	41.0F 5.0C	7.6 176	--	--	--	--	--	--	--	--	--	--	--	--	--	--					90AF			
03/06/74 0925	5050 5050		15.52 687	45.5F 7.5C	7.8 165	--	--	--	--	--	--	--	--	--	--	--	--	--	--					148AF			
04/03/74 1100	5050 5050		15.52 786	42.8F 6.0C	7.8 126	--	--	3.4 .15 11	--	0 .00	65 1.07	--	1.2 .03	--	.10	--		58		580A 0.2							
05/15/74 1010	5050 5050		12.35 211	51.8F 11.0C	7.6 145	--	--	--	--	--	--	--	--	--	--	--	--	--	--					15AF			
06/12/74 1020	5050		11.62 77	67.1F 19.5C	7.4 201	--	--	--	--	--	--	--	--	--	--	--	--	--	--					2AF			
07/10/74 0950	5050		11.35 45	64.4F 18.0C	8.0 250	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
08/07/74 0945	5050		10.44 8.1	74.3F 23.5C	8.0 289	--	--	--	--	--	--	--	--	--	--	--	--	--	--					1AF			
09/05/74 0910	5050		10.41 7.2	69.8F 21.0C	8.0 316	--	--	--	--	--	--	--	--	--	--	--	--	--	--					0AF			

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PM EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	H	F	TDS SUM	TH NCH	TURB SAR	HEM					
F6 4100.00 EEL RIVER SOUTH FORK NEAR MIRANDA																									
10/02/73 1320	5050 5050	3.86 74	13.9 146	63.5F 17.5C	8.1 257	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
11/14/73 1550	5050 5050	12.53 14400	12.2 114	53.6F 12.0C	8.1 96	10 .50 51	3.2 .26 26	4.4 .19 19	1.5 .04 4	0 .00	.46 .75 79	4.0 .08 8	4.3 .12 13	--	.00	--	64 50	38 1	240A 0.3	T					
12/11/73 1555	5050 5050	8.03 4100	12.2 109	50.0F 10.0C	8.1 117	--	--	--	--	--	--	--	--	--	--	--	--				102AF				
01/16/74 1100	5050 5050	34.52 122000	12.5 113	50.9F 10.5C	7.2 64 78	--	--	3.9 .17 18	--	0 .00	.39 .64	--	1.8 .65	--	.50	--	--	38	3200A 0.3						
02/06/74 0915	5050 5050	6.89 1600	13.4 109	43.7F 6.5C	7.3 129	--	--	--	--	--	--	--	--	--	--	--	--				61AF				
03/05/74 1520	5050 5050	8.72 4500	12.3 109	50.0F 10.0C	7.3 113	--	--	--	--	--	--	--	--	--	--	--	--				129AF				
04/02/74 1420	5050 5050	12.14 13000	11.7 108	52.7F 11.5C	7.6 8.2 88	--	--	4.6 .20 21	--	0 .00	.48 .79	--	3.5 .10	--	.10	--	--	38	1500A 0.3						
05/14/74 1420	5050 5050	5.60 850	11.4 118	62.6F 17.0C	8.2 186	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
06/11/74 1420	5050	3.44 325	10.3 124	77.0F 25.0C	8.3 208	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
07/09/74 1510	5050	5.20 270	10.0 114	71.6F 22.0C	8.3 234	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
08/06/74 1345	5050	4.58 67		80.6F 27.0C	8.1 252	--	--	--	--	--	--	--	--	--	--	--	--				2AF				
09/04/74 1330	5050	4.53 55	12.5 148	75.2F 24.0C	8.2 251	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
F6 5279.00 VAN DUZEN RIVER NEAR BRIDGEVILLE																									
10/02/73 1050	5050 5050	3.53 28	12.1 121	59.0F 15.0C	7.8 265	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
11/14/73 1230	5050 5050	9.70 6200	12.1 108	50.0F 10.0C	8.1 92 99	13 .65 59	3.0 .25 23	3.2 .14 13	2.3 .06 5	0 .00	.50 .82 80	7.6 .16 16	.9 .03 3	.5 .01 1	.00	--	86 55	45 4	260A 0.2	E T S					
12/11/73 1320	5050 5050	7.12 1980	13.0 113	48.2F 9.0C	7.4 109	--	--	--	--	--	--	--	--	--	--	--	--				170AF				
02/05/74 1505	5050 5050	5.46 900	13.5 111	43.7F 6.5C	7.2 120	--	--	--	--	--	--	--	--	--	--	--	--				49AF				
03/05/74 1150	5050 5050	6.66 2710	13.4 116	47.3F 8.5C	7.3 108	--	--	--	--	--	--	--	--	--	--	--	--				105AF				
04/02/74 1130	5050 5050	9.11 5700	12.8 108	45.5F 7.5C	7.6 8.3 95	--	--	3.0 .13 13	--	0 .00	.52 .85	--	1.1 .03	--	.00	--	--	43	550A 0.2						
05/14/74 1150	5050 5050	4.75 195	10.6 106	59.0F 15.0C	7.8 162	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
06/11/74 1150	5050	4.31 74	8.9 103	72.5F 22.5C	8.1 200	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
07/09/74 1120	5050	4.20 57	9.6 105	67.1F 19.5C	8.0 233	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
08/06/74 1135	5050	3.83 19		71.6F 22.0C	8.2 258	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
09/04/74 1100	5050	3.67 10	9.8 108	68.0F 20.0C	8.0 282	--	--	--	--	--	--	--	--	--	--	--	--				1AF				
F7 1100.00 MATTOLE RIVER NEAR PETROLIA																									
02/05/74 1310	5050 5050	4.49 1350	12.7 110	48.2F 9.0C	7.6 130 128	15 .75 59	3.0 .25 20	5.8 .25 20	.8 .02 2	0 .00	.58 .95 77	9.7 .20 16	2.9 .08 7	.2 .00	.20	--	82 66	51 3	120A 0.4						

TABLE D-2 cont
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. Q DEPTH	DO SAT	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					TURB SAR	REM
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	PERCENT REACTANCE VALUE	g	F	TOS SUM	TH NCH			
.....																						
F7 5100.00 HEAR RIVER AT CAPE TOWN																						
02/05/74	5050		12.9	46.4F	7.4	160	20	3.2	6.7	1.5	0	60	18	5.5	.8	.10	--	98	62	180A		
1200	5050	300E	108	8.0C	7.4	159	1.00 63	.26 16	.29 18	.06 3	.00	.98 64	.37 24	.16 11	.01 1	--	--	85	14	0.4		

TABLE D-3

MINOR ELEMENT ANALYSIS OF SURFACE WATER

Lab and Sampler Agency Codes

- 5000 - U. S. Geological Survey
5050 - Department of Water Resources

Abbreviations

- TIME - Pacific Standard Time on a 24-hour clock
DISCH - Instantaneous discharge in cubic feet per second
EC - Electrical conductance in micromhos at 25° Celsius
TEMP - Water temperature at time of sampling in degrees Fahrenheit (F) and Celsius (C)
PH - Measure of acidity (<7) or alkalinity (>7) of water
CHROM (ALL) - All chromium
CHROM (HEX) - Hexavalent chromium
D - Dissolved
T - Total

TABLE D-3
MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	BARIUM CADMIUM	CHROM (ALL) CHROM (HEX)	COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC	REM
F0 1300.00 SMITH RIVER NEAR CRESCENT CITY												
04/02/74 0700	5050 5050			8.0C 7.4	--	-- 0.00	-- T	0.01 5.1	T T	0.01 0.04	-- T	-- 0.01
F2 1050.00 SHASTA RIVER NEAR YREKA												
05/07/74 1120	5050 5050			18.5C 8.2	--	-- 0.00	-- T	0.01 0.26	T T	0.00 0.01	-- T	-- 0.02
F2 5250.00 SCOTT RIVER NEAR FORT JONES												
05/07/74 1430	5050 5050			12.5C 7.5	--	-- 0.00	-- T	0.01 3.5	T T	0.00 0.08	-- T	-- 0.01
F3 1100.00 KLAMATH RIVER NEAR KLAMATH												
10/02/73 0810	5050 5000		219	15.5C 7.8	--	--	--	-- 0.00	-- D	--	--	--
11/13/73 1635	5050 5000		102	9.0C 7.3	--	--	--	-- 0.060	-- D	--	--	--
12/11/73 0935	5050 5000			6.5C 7.4	--	--	--	-- 0.050	-- D	--	--	--
01/15/74 0935	5050 5000			8.0C 8.0	--	--	--	-- 0.050	-- D	--	--	--
02/05/74 0855	5050 5000			6.0C 7.5	--	--	--	-- 0.020	-- D	--	--	--
03/05/74 0835	5050 5000			8.0C 7.7	--	--	--	-- 0.040	-- D	--	--	--
04/02/74 0845	5050 5050			8.0C 7.9	--	-- 0.00	-- T	0.06 41.	T T	0.00 0.92	-- T	-- 0.08
05/14/74 0915	5050 5000		122	11.5C 8.3	--	--	--	-- 0.05	-- D	--	--	--
06/11/74 0910	5050 5000		107	17.0C 7.4	--	--	--	-- 0.040	-- D	--	--	--
07/09/74 0750	5050 5000		149	17.0C 7.5	--	--	--	-- 0.020	-- D	--	--	--
08/06/74 0830	5050 5000		175	215.3 76.0	--	--	--	-- 0.030	-- D	--	--	--
09/04/74 0810	5050 5000		206	20.0C 7.9	--	--	--	-- 0.0020	-- D	--	--	--
F3 1220.01 KLAMATH RIVER AT ORLEANS												
04/01/74 1145	5050 5050			8.0C 7.7	--	-- 0.01	-- T	0.08 30.	T T	0.00 0.64	-- T	-- 0.05
F3 1430.00 KLAMATH RIVER NEAR SEIAD VALLEY												
05/07/74 1320	5050 5050			14.0C 8.4	--	-- 0.00	-- T	0.01 2.2	T T	0.01 0.06	-- T	-- 0.01
F3 1599.01 KLAMATH RIVER BELOW IRON GATE DAM												
05/07/74 1030	5050 5050			14.0C 7.6	--	-- 0.00	-- T	0.00 0.41	T T	0.00 0.02	-- T	-- 0.21
F4 1080.00 TRINITY RIVER AT HOOPA												
04/01/74 1040	5050 5050			7.5C 8.3	--	-- 0.01	-- T	0.10 48.	T T	0.01 1.1	-- T	-- 0.28
F4 1376.00 TRINITY RIVER NEAR HURNT RANCH												
05/13/74 0905	5050 5050			11.0C 7.4	--	-- 0.00	-- T	0.01 0.59	T T	0.00 0.02	-- T	-- 0.02
F4 1640.00 TRINITY RIVER AT LEWISTON												
05/16/74 1235	5050 5050		71	8.5C 7.3	--	-- 0.00	-- T	0.00 0.46	T T	0.00 0.01	-- T	-- 0.00
F5 1100.00 MAD RIVER NEAR ARCATA												
05/13/74 1350	5050 5050			16.0C 8.2	--	-- 0.00	-- T	0.00 0.10	T T	0.00 0.01	-- T	-- 0.00
F5 5100.00 REDWOOD CREEK AT ORICK												
04/01/74 1435	5050 5050			9.5C 7.4	--	-- 0.01	-- T	0.37 228.	T T	0.12 5.0	-- T	-- 0.67
F6 1100.00 EEL RIVER AT SCOTIA												
10/02/73 1150	5050 5000		304	16.0C 7.9	--	--	--	-- 0.010	-- D	--	--	--
11/14/73 1400	5050 5000		109	12.0C 7.9	--	--	--	-- 0.060	-- D	--	--	--
12/11/73 1415	5050 5000			9.0C 7.4	--	--	--	-- 0.040	-- D	--	--	--
01/16/74 0905	5050 5000			10.5C 7.6	--	--	--	-- 0.080	-- D	--	--	--
02/05/74 1600	5050 5000			8.5C 7.6	--	--	--	-- 0.020	-- D	--	--	--
03/05/74 1335	5050 5000			8.5C 7.6	--	--	--	-- 0.020	-- D	--	--	--

TABLE D-3 cont
MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ARSENIC	CONSTITUENTS BARIUM CADMIUM	IN MILLIGRAMS CHROM (ALL) CHROM (HEX)	PER LITER COPPER IRON	LEAD MANGANESE	MERCURY SELENIUM	SILVER ZINC	REM
F6 1100.00					EEL RIVER AT SCOTIA					CONTINUED		
04/02/74 1245	5050 5050			10.0C 8.0	--	-- 0.01	-- T	0.12 93.	T T	0.02 1.9	-- T	-- 0.22
05/14/74 1245	5050 5000		188	17.0C 8.3	--	--	--	-- 0.02	-- D	--	--	--
06/11/74 1255	5050 5000		227	23.0C 7.9	--	--	--	-- 0.020	-- O	--	--	--
07/09/74 1230	5050 5000		279	20.0C 8.1	--	--	--	-- 0.010	-- O	--	--	--
09/04/74 1210	5050 5000		317	18.0C 8.0	--	--	--	-- 0.020	-- D	--	--	--
F6 1154.50					EEL RIVER AT SOUTH FORK							
04/02/74 1340	5050 5050			10.0C 8.2	--	-- 0.01	-- T	0.07 77.	T T	0.01 1.6	-- T	-- 0.49
F6 1329.50					EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS							
04/02/74 1340	5050 5050			10.0C 8.2	--	-- 0.00	-- T	0.03 26.	T T	0.00 0.51	-- T	-- 0.08
F6 1350.00					OUTLET CREEK NEAR LONGVALE							
04/03/74 0740	5050 5050			9.0C 7.3	--	-- 0.00	-- T	0.01 5.9	T T	0.00 0.03	-- T	-- 0.01
F6 3009.01					EEL RIVER MIDDLE FORK AT DOS RIOS							
04/03/74 0840	5050 5050			7.0C 7.8	--	-- 0.01	-- T	0.05 49.	T T	0.01 0.96	-- T	-- 0.54
F6 3200.00					BLACK BUTTE RIVER NEAR COVELO							
04/03/74 1100	5050 5050			6.0C 7.8	--	-- 0.01	-- T	0.07 62.	T T	0.06 1.1	-- T	-- 0.35
F6 4100.00					EEL RIVER SOUTH FORK NEAR MIRANDA							
04/02/74 1420	5050 5050			11.5C 7.6	--	-- 0.01	-- T	0.06 66.	T T	0.02 1.3	-- T	-- 1.3
F6 5279.00					VAN DUZEN RIVER NEAR BRIDGEVILLE							
04/02/74 1130	5050 5050			7.5C 7.6	--	-- 0.01	-- T	0.06 64.	T T	0.39 1.2	-- T	-- 0.21

TABLE D-4

SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF SURFACE WATER

Lab and Sampler Agency Codes

5000 - U. S. Geological Survey

5050 - Department of Water Resources

Abbreviations

TIME - Pacific Standard Time on a 24-hour clock

DISCH - Instantaneous discharge in cubic feet per second

EC - Electrical conductance in micromhos at 25° Celsius

TEMP - Water temperature at time of sampling in degrees
Fahrenheit (F) and Celsius (C)

PH - Measure of acidity (<7) or alkalinity (>7) of water

D - Dissolved

T - Total

TABLE D-4
SUPPLEMENTAL MINOR ELEMENT ANALYSIS OF SURFACE WATER

DATE TIME	SAMP LAB	DEPTH	DISCH EC	TEMP PH	ALUMINUM	CONSTITUENTS IN MILLIGRAMS ANTIMONY BERYLLIUM	BISMUTH COBALT	PER LITER GALLIUM GERMANIUM	LITHIUM MOLYBDENUM	NICKEL STRONTIUM	TITANIUM VANADIUM	REP
F3 1100.00 KLAMATH RIVER NEAR KLAMATH												
10/02/73	5050			15.5C		--	--	--	0.00 D	--	--	
0810	5000		219	7.8	--	--	--	--	--	0.0160 D	--	
11/13/73	5050			9.0C		--	--	--	0.00 D	--	--	
1635	5000		102	7.3	--	--	--	--	--	0.080 D	--	
12/11/73	5050			6.5C		--	--	--	0.000 D	--	--	
0935	5000			7.4	--	--	--	--	--	0.090 D	--	
01/15/74	5050			8.0C		--	--	--	0.000 O	--	--	
0935	5000			8.0	--	--	--	--	--	0.060 D	--	
02/05/74	5050			6.0C		--	--	--	0.000 D	--	--	
0855	5000			7.5	--	--	--	--	--	0.060 D	--	
03/05/74	5050			8.0C		--	--	--	0.00 D	--	--	
0835	5000			7.7	--	--	--	--	--	0.090 D	--	
04/02/74	5050			8.0C		--	--	--	0.20 D	--	--	
0845	5000		152	7.9	--	--	--	--	--	0.60 D	--	
05/14/74	5050			11.5C		--	--	--	0.00 D	--	--	
0915	5000		122	8.3	--	--	--	--	--	0.080 D	--	
06/11/74	5050			17.0C		--	--	--	0.00 D	--	--	
0910	5000		107	7.4	--	--	--	--	--	0.08 D	--	
07/09/74	5050			17.0C		--	--	--	0.000 D	--	--	
0750	5000		149	7.5	--	--	--	--	--	0.110 D	--	
08/06/74	5050			215.3		--	--	--	0.0000 D	--	--	
0830	5000		175	76.0	--	--	--	--	--	.0010 D	--	
09/04/74	5050			20.0C		--	--	--	.0000 D	--	--	
0810	5000		296	7.9	--	--	--	--	--	0.0013 D	--	
F6 1100.00 EEL RIVER AT SCOTIA												
10/02/73	5050			16.0C		--	--	--	0.00 D	--	--	
1150	5000		304	7.9	--	--	--	--	--	0.0460 D	--	
11/14/73	5050			12.0C		--	--	--	0.00 D	--	--	
1400	5000		109	7.9	--	--	--	--	--	0.0180 D	--	
12/11/73	5050			9.0C		--	--	--	0.000 D	--	--	
1415	5000			7.4	--	--	--	--	--	0.190 D	--	
01/16/74	5050			10.5C		--	--	--	0.000 O	--	--	
0905	5000			7.6	--	--	--	--	--	0.110 D	--	
02/05/74	5050			8.5C		--	--	--	0.000 D	--	--	
1600	5000			7.6	--	--	--	--	--	0.240 D	--	
03/05/74	5050			8.5C		--	--	--	0.00 D	--	--	
1335	5000			7.6	--	--	--	--	--	0.0210 D	--	
04/02/74	5050			10.0C		--	--	--	0.02 D	--	--	
1245	5000		143	8.0	--	--	--	--	--	0.14 D	--	
05/14/74	5050			17.0C		--	--	--	0.00 D	--	--	
1245	5000		188	8.3	--	--	--	--	--	0.30 D	--	
06/11/74	5050			23.0C		--	--	--	0.00 D	--	--	
1255	5000		227	7.9	--	--	--	--	--	0.32 D	--	
07/09/74	5050			20.0C		--	--	--	0.000 D	--	--	
1230	5000		279	8.1	--	--	--	--	--	0.420 D	--	
09/04/74	5050			18.0C		--	--	--	0.0000 D	--	--	
1210	5000		317	8.0	--	--	--	--	--	.0044 D	--	

TABLE D-5 NUTRIENT ANALYSIS OF SURFACE WATER

Lab and Sampler Agency Codes

- 5000 - U. S. Geological Survey
5050 - Department of Water Resources

Abbreviations

- TIME - Pacific Standard Time on a 24-hour clock.
G.H. - Instantaneous gage height in feet above an established datum.
Q - Instantaneous discharge measured in cubic feet per second (cfs). "E" indicates the value has been estimated.
TEMP - Water temperature in degrees Fahrenheit (F) or Celsius (C).
TURB - Jackson Turbidity Units measured with a Hellige Turbidimeter (E) or a Hach Nephelometer (A).
PH - Measure of acidity or alkalinity of water.
EC - Electrical conductance in micromhos at 25° C.
HCO₃ - Bicarbonate
CO₃ - Carbonate

Nitrogen Series as N

- NO₂ - Unfiltered nitrite
NH₃ - Unfiltered ammonia
NO₃ - Unfiltered nitrate
ORG N - Organic nitrogen
DIS ORG N - Dissolved organic nitrogen
NH₃ + ORG N - Ammonia plus organic nitrogen

Phosphorus Series as P

- DIS A.H.PO₄ - Dissolved acid hydrolyzable phosphate
D O-PO₄ - Dissolved orthophosphate
T O-PO₄ - Total orthophosphate
D TOT P - Dissolved total phosphorus
TOT P - Total phosphorus

TABLE D-5

DATE TIME		SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD LABORATORY PH	NUTRIENT ANALYSIS OF SURFACE WATER										NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER									
						TURB	CAC03	P	MC03	NH3	NO2	F ORG N	F (NH3 +	DIS	F H3PO4	F TOT P	U ORG N	U ORG N	A.M.P04	U H3PO4	U TOT P	REM			
F0 1300.00 SMITH RIVER NEAR CRESCENT CITY																									
04/02/74	5050	20.94	8.0C	7.4		48A					--	--	--	--	0.01	--									
0700	5050				66						0.02	--	0.0	--	--	0.17									
F2 1050.00 SHASTA RIVER NEAR YREKA																									
05/07/74	5050	3.68	18.5C	8.2							--	--	--	--	0.11	--									
1120	5050										0.02	--	0.3	--	--	0.12									
F2 5250.00 SCOTT RIVER NEAR FORT JONES																									
05/07/74	5050	9.51	12.5C	7.5							--	--	--	--	0.01	--									
1430	5050										0.11	--	0.1	--	--	0.10									
F3 1100.00 KLAMATH RIVER NEAR KLAMATH																									
10/02/73	5050		15.5C	7.8	219				112		--	--	--	--	--	--									
0810	5000			8.1					0	--	0.05	--	--	--	--	0.13									
11/13/73	5050		9.0C	7.3	102						--	--	--	--	--	--									
1635	5000										0.06	--	--	--	--	0.42									
12/11/73	5050		6.5C	7.4		50A			70		--	--	--	--	--	--									
0935	5000				127				0	--	0.21	--	--	--	--	0.15									
01/15/74	5050		8.0C	8.0		200A			49		--	--	--	--	--	--									
0935	5000				95				0	--	0.13	--	--	--	--	0.70									
02/05/74	5050		6.0C	7.5		70A			78		--	--	--	--	--	--									
0855	5000				144					--	0.31	--	--	--	--	0.17									
03/05/74	5050		8.0C	7.7		80A			76		--	--	--	--	--	--									
0835	5000				148					--	0.20	--	--	--	--	0.16									
04/02/74	5050	12.53	8.0C	7.9							--	--	--	--	0.03	--									
0845	5050										0.05	--	0.7	--	--	1.9									
04/02/74	5050		8.0C	7.9		152	100A		60		--	--	--	--	--	--									
0846	5000				114					--	0.30	--	--	--	--	0.83									
05/14/74	5050		11.5C	8.3		122	30A		67		--	--	--	--	--	--									
0915	5000				119					--	0.06	--	--	--	--	0.12									
06/11/74	5050		17.0C	7.4		107	20A		61		--	--	--	--	--	--									
0910	5000				110					--	0.03	--	--	--	--	0.05									
07/09/74	5050		17.0C	7.5		149	1A		84		--	--	--	--	--	--									
0750	5000				154					--	0.01	--	--	--	--	0.03									
08/06/74	5050		215.3	76.0		175	2A				--	--	--	--	--	--									
0830	5000			7.6		184				--	0.06	--	--	--	--	0.03									
09/04/74	5050		20.0C	7.9		206	2A				--	--	--	--	--	--									
0810	5000			7.9		203				--	0.07	--	--	--	--	0.06									
F3 1220.01 KLAMATH RIVER AT ORLEANS																									
01/01/74	5050	19.72	8.0C	7.5		220A			63		--	--	--	--	0.03	--									
1145	5050			8.1	111				0	--	0.05	--	0.5	--	--	0.67									
F3 1430.00 KLAMATH RIVER NEAR SEJAD VALLEY																									
10/15/73	5050		14.5C	8.0	274						--	--	--	--	0.18	--									
1120	5050										0.42	--	--	--	--	--									
11/15/73	5050		8.5C	8.1	181	13A					--	--	--	--	0.09	--									
1105	5050										0.40	--	--	--	--	--									
01/14/74	5050		5.0C	7.4	160	110A					--	--	--	--	0.04	--									
1425	5050										0.45	--	--	--	--	--									
05/07/74	5050		14.0C	8.4							--	--	--	--	0.03	--									
1320	5050										0.12	--	0.2	--	--	0.12									
F3 1599.01 KLAMATH RIVER BELOW IKON GATE DAM																									
05/07/74	5050		14.0C	7.6							--	--	--	--	0.05	--									
1030	5050										0.17	--	0.4	--	--	0.08									
F4 1080.00 TRINITY RIVER AT MOOPA																									
11/13/73	5050	25.09	9.5C	7.4	117	130A					--	--	--	--	0.00	--									
1305	5050										0.08	--	--	--	--	--									
04/01/74	5050	31.84	7.5C	8.3		360A			63		--	--	--	--	0.02	--									
1040	5050			8.1	111				0	--	0.02	--	0.7	--	--	1.7									
08/05/74	5050	14.03	22.0C	7.4	175	1AF					--	--	--	--	0.01	--									
1040	5050										0.05	--	--	--	--	--									
F4 1376.00 TRINITY RIVER NEAR BURNT RANCH																									
05/13/74	5050		11.0C	7.4		114					--	--	--	--	0.01	--									
0905	5050				100						0.00	--	0.1	--	--	0.02									
F4 1640.00 TRINITY RIVER AT LEWISTON																									
03/04/74	5050	3.36	7.0C	7.1	76	35AF					--	--	--	--	0.01	--									
0800	5050										0.07	--	--	--	--	--									
05/16/74	5050	5.40	8.5C	7.3	71	12A					--	--	--	--	0.00	--									
1235	5050				74						0.04	--	0.1	--	--	0.01									
F5 1100.00 MAD RIVER NEAR ARCATA																									
05/13/74	5050	4.49	16.0C	8.2		3A					--	--	--	--	0.00	--									
1350	5050				158						0.00	--	0.0	--	--	0.02									

TABLE D-5 cont

NUTRIENT ANALYSIS OF SURFACE WATER																
DATE TIME	SAMP LAB	G.H. DISCH.	TEMP DEPTH	FIELD LABORATORY		FIELD LAB					NUTRIENT CONSTITUENTS IN MILLIGRAMS PER LITER					
				PH	EC	TURN F-CO ₂	CAC03 CAC03	P T	HC03 CO ₃	NH ₃	NO ₂ NO ₃	F ORG N U ORG N	F (NH ₃ U ORG N)	DIS A.M.P04	F H3PO4 U H3PO4	F TOT P U TOT P
F5 5100.00 REDWOOD CREEK AT ORICK																
04/01/74 1435	5050 5050	16.93	9.5C	7.4 8.0		1600A 57		27 0		-- 0.07	-- --	-- --	-- --		0.02 --	-- 3.1
F6 1109.00 EEL RIVER AT SCOTIA																
10/02/73 1150	5050 5000		16.0C	7.9 8.3		304		151 0	-- --	-- 0.03	-- --	-- --	-- --		-- --	-- 0.04
11/14/73 1400	5050 5000		12.0C	7.9		109			--	-- 0.26	-- --	-- --	-- --		-- --	-- 0.90
12/11/73 1415	5050 5000		9.0C	7.4		50A 138		69 0	-- --	-- 0.13	-- --	-- --	-- --		-- --	-- 0.12
01/16/74 0905	5050 5000		10.5C	7.6		200A 96		53 0	-- --	-- 0.48	-- --	-- --	-- --		-- --	-- 2.3
02/05/74 1600	5050 5000		8.5C	7.6		80A 160		82	--	-- 0.14	-- --	-- --	-- --		-- --	-- 0.12
03/05/74 1335	5050 5000		8.5C	7.6		100A 149		76	--	-- 0.27	-- --	-- --	-- --		-- --	-- 0.04
04/02/74 1245	5050 5050	27.82	10.0C	8.0					--	-- 0.03	-- --	-- 1.2	-- --		0.03 --	-- 0.68
04/02/74 1246	5050 5000		10.0C	8.0		143 108	600A	57	--	-- 0.36	-- --	-- --	-- --		-- --	-- 1.2
05/14/74 1245	5050 5000		17.0C	8.3		188 183	10A	98	--	-- 0.06	-- --	-- --	-- --		-- --	-- 0.19
06/11/74 1255	5050 5000		23.0C	7.9		227 229	1A	121	--	-- 0.03	-- --	-- --	-- --		-- --	-- 0.00
07/09/74 1230	5050 5000		20.0C	8.1		279			--	-- 0.03	-- --	-- --	-- --		-- --	-- 0.02
09/04/74 1210	5050 5000		18.0C	8.0 7.9		317 314	1A		--	-- 0.04	-- --	-- --	-- --		-- --	-- 0.00
F6 1154.50 EEL RIVER AT SOUTH FORK																
04/02/74 1340	5050 5050		10.0C	8.2 8.3		650A 108		59 0	--	-- 0.92	-- --	-- 1.1	-- --		0.02 --	-- 0.94
F6 1329.50 EEL RIVER ABOVE OUTLET CREEK NEAR DOS RIOS																
11/15/73 1200	5050 5050		12.0C	7.9		113 110A			--	-- 0.08	-- --	-- --	-- --		0.01 --	-- --
04/02/74 1340	5050 5050		10.0C	8.2 8.0		270A 103		55 0	--	-- 0.01	-- --	-- 0.4	-- --		0.02 --	-- 0.75
F6 1350.00 OUTLET CREEK NEAR LONGVALE																
04/03/74 0740	5050 5050		9.0C	7.3 8.0		95A 75		39 0	--	-- 0.05	-- --	-- 0.2	-- --		0.02 --	-- 0.80
F6 3009.01 EEL RIVER MIDDLE FORK AT DOS RIOS																
11/15/73 0800	5050 5050	13.08	9.5C	8.0		106			--	-- 0.12	-- --	-- --	-- --		0.01 --	-- --
01/23/74 1115	5050 5050	11.63	6.0C	7.6		143 240AF			--	-- 0.07	-- --	-- --	-- --		0.01 --	-- --
04/03/74 0840	5050 5050	13.67	7.0C	7.8 8.1		170A 124		67 0	--	-- 0.02	-- --	-- 0.7	-- --		0.02 --	-- 0.65
F6 3050.00 MILL CREEK NEAR COVELO																
11/15/73 0915	5050 5050		10.5C	8.1		108 70A			--	-- 0.17	-- --	-- --	-- --		0.01 --	-- --
04/03/74 0930	5050 5050		8.0C	7.4		145 86AF			--	-- 0.23	-- --	-- --	-- --		0.01 --	-- --
07/10/74 0905	5050 5050	6 E	19.5C	7.4		327 14F			--	-- 0.02	-- --	-- --	-- --		0.00 --	-- --
F6 3200.00 BLACK BUTTE RIVER NEAR COVELO																
11/15/73 1010	5050 5050	13.50	10.0C	8.4		110 24A			--	-- 0.07	-- --	-- --	-- --		0.01 --	-- --
01/23/74 1305	5050 5050	15.53	6.5C	8.0		140 1100AF			--	-- 0.05	-- --	-- --	-- --		0.01 --	-- --
04/03/74 1100	5050 5050	15.52	6.0C	7.8 8.1		580A 126		65 0	--	-- 0.02	-- --	-- 0.9	-- --		0.02 --	-- 1.4
F6 4100.00 EEL RIVER SOUTH FORK NEAR MIRANDA																
11/14/73 1550	5050 5050	12.53	12.0C	8.2		92 240A			--	-- 0.17	-- --	-- --	-- --		0.01 --	-- --
04/02/74 1420	5050 5050	12.41	11.5C	7.6 8.2		1500A 88		48 0	--	-- 0.03	-- --	-- 0.8	-- --		0.03 --	-- 0.65
F6 5279.00 VAN DUZEN RIVER NEAR BRIDGEVILLE																
04/02/74 1130	5050 5050	9.11	7.5C	7.6 8.3		550A 95		52 0	--	-- 0.04	-- --	-- 0.9	-- --		0.02 --	-- 0.66

TABLE D-6

PESTICIDES IN SURFACE WATER

All samples were collected and analyzed for pesticides by the Department of Water Resources (5050).

All samples were analyzed for two groups of pesticides, chlorinated organic compounds and organic phosphorus compounds. All pesticides detected are included in Table D-6. Other pesticides in these groups were absent or below detectable levels.

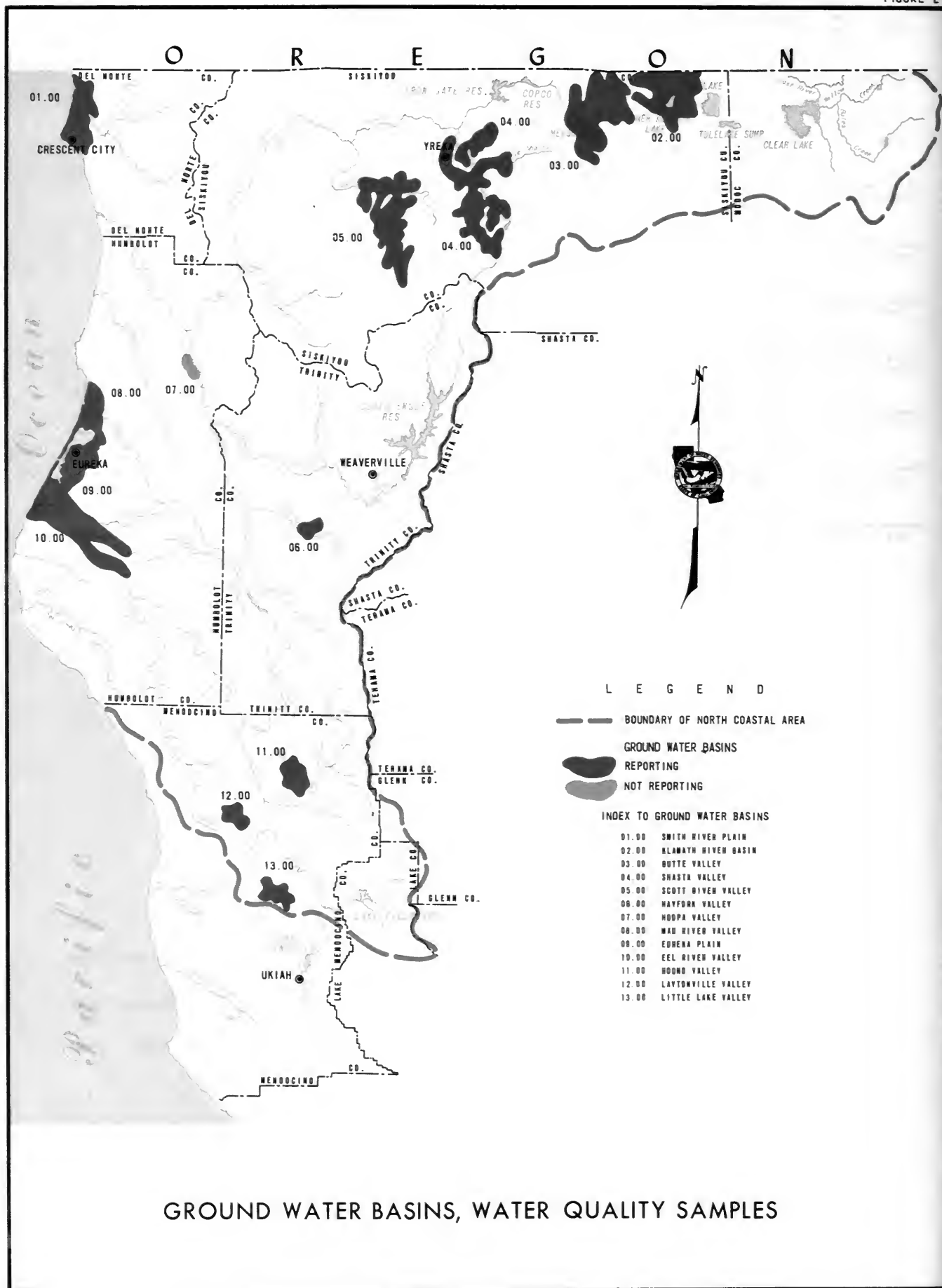
Pesticides

- BHC - Benzene hexachloride
- DDT - Dichloro diphenyl trichloroethane
- ppDDD - Para para isomer of dichloro diphenyl
dichloroethane
- ppDDT - Para para isomer of dichloro diphenyl
trichloroethane

When two pesticides are reported together with a slash mark separating them (ppDDE/Dieldrin, Simazine/Atrazine, etc.), the reported concentration is an undifferentiated total of the two. Either of the two pesticides could make up the entire total.

TABLE D-6

PESTICIDES IN SURFACE WATER COMPOUNDS REPORTED IN NANOGRAMS/LITER									
DATE TIME	SAMP LAB	TEMP EC	DO PH	G.H. DEP DISCHARGE	CHLORINATED HYDROCARBON		ORGANIC PHOSPHORUS		OTHER
		F0	1300.00		SMITH RIVER NEAR CRESCENT CITY				
04/02/74 0700	5050 5050	8.0C 7.4	13.7 7.4	20.94	NONE	DETECTED	NONE	DETECTED	
		F2	1050.00		SHASTA RIVER NEAR YREKA				
05/07/74 1120	5050 5050	18.5C 8.2	9.8 8.2	3.68	NONE	DETECTED	NONE	DETECTED	
		F2	5250.00		SCOTT RIVER NEAR FORT JONES				
05/07/74 1430	5050 5050	12.5C 7.5	10.5 7.5	9.51	NONE	DETECTED	NONE	DETECTED	
		F3	1100.00		KLAMATH RIVER NEAR KLAMATH				
04/02/74 0845	5050 5050	8.0C 7.9	13.1 7.9	25.30	NONE	DETECTED	NONE	DETECTED	
		F4	1080.00		TRINITY RIVER AT MOOPA				
04/01/74 1040	5050 5050	7.5C 8.3	12.9 8.3	31.84	NONE	DETECTED	NONE	DETECTED	
		F5	5100.00		REDWOOD CREEK AT ORICK				
04/01/74 1435	5050 5050	9.5C 7.4	12.3 7.4	16.93	NONE	DETECTED	NONE	DETECTED	
		F6	1100.00		EEL RIVER AT SCOTIA				
04/02/74 1245	5050 5050	10.0C 8.0	12.3 8.0	27.82	NONE	DETECTED	NONE	DETECTED	
		F6	1154.50		EEL RIVER AT SOUTH FORK				
04/02/74 1340	5050 5050	10.0C 8.2	12.6 8.2		NONE	DETECTED	NONE	DETECTED	
		F6	5279.00		VAN DUZEN RIVER NEAR BRIDGEVILLE				
04/02/74 1130	5050 5050	7.5C 7.6	12.8 7.6	9.11	NONE	DETECTED	NONE	DETECTED	



APPENDIX E
GROUND WATER QUALITY

This appendix presents ground water quality data collected during the period from October 1, 1973, through September 30, 1974. The data were collected from a number of major ground water sources in the North Coastal area in cooperation with local agencies. During the 1973 water year, 96 wells were sampled in 10 ground water basins.

At the time of field sampling, pH, specific conductance, and temperature measurements are made. The results are compared with measurements made in previous years. If a substantial change is noted, the samples are submitted to the laboratory for further analyses.

Laboratory analyses of ground waters are performed in accordance with "Standard Methods for the Examination of Water and Waste Water", 13th Edition, 1971.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurements".

TABLE E-1 MINERAL ANALYSES OF GROUND WATER

An explanation of column headings follows:

The LAB and SAMPLER agency code is as follows:

5050 - California Department of Water Resources

<u>TIME</u>	- Pacific Standard Time on a 24-hour clock.
<u>TEMP</u>	- Water temperature in degrees Fahrenheit or degrees Celsius. The computer prints out both.
<u>PH LAB & FIELD</u>	- Measure of acidity or alkalinity of water.
<u>EC LAB</u>	- The electrical conductance in micromhos at 25° Celsius.
<u>EC FIELD</u>	- The electrical conductance in micromhos at time of field sampling.
<u>TDS</u>	- Gravimetric determination of total dissolved solids at 180° Celsius.
<u>SUM</u>	- Total dissolved solids determined by addition of analyzed constituents.
<u>TH</u>	- Total hardness.
<u>NCH</u>	- Noncarbonate hardness.
<u>SAR</u>	- Sodium adsorption ratio.
<u>PERCENT REACTANCE</u>	
<u>VALUE</u>	- Determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter arriving at a percentage. For a partial analysis, an approximate value is determined by multiplying the electrical conductance by 0.01 and using that as the cation or anion sum.

The MINERAL CONSTITUENTS are as follows:

B	- Boron	K	- Potassium
CA	- Calcium	MG	- Magnesium
CL	- Chloride	NA	- Sodium
CO ₃	- Carbonate	NO ₃	- Nitrate
F	- Fluoride	SiO ₂	- Silica
HCO ₃	- Bicarbonate	SO ₄	- Sulfate

TABLE E-1
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLE LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					REMARKS
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	B	F	TDS SUM	TH NCH	SAR	
1 NORTH COASTAL REGION																		
1-01 SMITH RIVER PLAIN																		
09/04/74 1310	5050	16N/01W-02001 59.0F 15.0C	6.7 170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/04/74 1630	5050	16N/02W-13E01 71.0F 21.6C	6.6 540	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/04/74 1440	5050	17N/01W-03E01 60.0F 15.5C	6.9 305 291	--	--	--	--	--	--	--	5.0 .14	5.2 .08	--	--	--	--	137	
09/04/74 1420	5050	17N/01W-04J01 64.0F 17.8C	6.9 320 8.0 305	7.5 .37 11	34 2.80 83	4.4 .19 6	.6 .02 1	0 .00	184 3.02 90	4.3 .09 3	5.3 .15 4	6.5 .10 3	.00	--	172 153	158 8	0.2	
09/04/74 1400	5050	17N/01W-14C02 60.0F 15.5C	6.5 175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/04/74 1530	5050	18N/01W-05K01 63.0F 17.2C	5.9 185 178	--	--	--	--	--	--	--	21 .59	21.0 .34	--	--	--	--	45	
09/04/74 1510	5050	18N/01W-26H01 62.0F 16.7C	6.3 105	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/04/74 1450	5050	18N/01W-34M02 58.0F 14.4C	6.8 318	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1-02 KLAMATH RIVER BASIN																		
06/18/74 1235	5050	46N/02E-15F01 57.0F 13.9C	7.1 850 7.9 855	83 4.14 47	26 2.14 24	56 2.44 28	5.5 .14 2	0 .00	129 2.11 24	284 5.91 67	22 .62 7	13.0 .21 2	.40	--	630 553	314 209	1.4	E
1-03 BUTTE VALLEY																		
06/18/74 1205	5050	45N/01E-09C02 57.0F 13.9C	7.7 200 187	--	--	--	--	--	--	--	3.4 .10	4.2 .07	--	--	--	--	70	
06/19/74 1015	5050	47N/01E-07C02 62.0F 16.7C	8.1 675	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1005	5050	47N/01E-07C03 77.0F 25.0C	8.3 445 8.3 459	6.4 .32 7	4.9 .40 9	80 3.48 75	17 .43 9	0 .00	212 3.47 77	11 .23 5	26 .73 16	5.7 .09 2	.20	--	300 255	36 0	5.8	
06/19/74 0945	5050	47N/01E-08D01 57.0F 13.9C	7.7 850	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1110	5050	47N/01E-32A01 70.0F 21.1C	8.2 218 222	--	--	--	--	--	--	--	6.4 .18	--	.10	--	--	--	42	
06/18/74 1500	5050	48N/01E-30F01 56.0F 13.3C	7.8 395 382	--	--	--	--	--	--	--	6.6 .19	--	--	--	--	--	148	
06/18/74 1010	5050	45N/01W-33D01 56.0F 13.3C	6.9 118 8.0 109	9.2 .45 40	5.8 .48 41	4.1 .18 16	1.6 .04 3	0 .00	72 1.18 97	1.0 .02 2	.0 .00	1.3 .02 2	.00	--	96 58	47 0	0.3	E T
06/18/74 0950	5050	45N/02W-01P01 51.0F 10.5C	6.5 158 7.7 148	13 .65 42	7.7 .63 40	5.6 .24 15	1.7 .04 3	0 .00	73 1.20 81	8.7 .18 12	.0 .00	6.4 .10 7	.00	--	120 79	64 4	0.3	E T S
06/18/74 0930	5050	45N/02W-01Q02 48.0F 8.9C	6.3 100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1145	5050	46N/01W-02F01 54.0F 12.2C	8.2 400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE E-1 cont
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					REMARKS	
				CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	R	F	TDS SUM	TH NCH	SAR		
1 NORTH COASTAL REGION BUTTE VALLEY																			
06/19/74 0835	5050	46N/01W-17801 54.0F 12.2C	M	8.3 350	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06/19/74 0815	5050	46N/01W-17602 59.0F 15.0C	M	8.2 400 8.5 433	35 1.75 38	25 2.06 44	16 .70 15	5.0 .13 3	8.0 .27 6	221 3.62 78	17 .35 8	8.1 .23 5	10.0 .16 3	.00	--	234 233	192 0	0.5	
06/19/74 0735	5050	46N/01W-17L01 54.0F 12.2C	M	7.6 440	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1310	5050	46N/01W-29F01 53.0F 11.7C	M	7.0 325 8.1 352	23 1.15 31	22 1.81 49	14 .61 17	4.0 .10 3	0 .00	163 2.67 70	40 .83 22	2.9 .08 2	14.0 .23 6	.00	--	223 200	146 15	0.5	
06/19/74 1320	5050	46N/01W-30Q01 54.0F 12.2C	M	7.0 312 8.4 336	21 1.05 30	22 1.81 52	11 .48 14	4.4 .11 3	4.0 .13 4	145 2.38 66	39 .81 22	2.0 .06 2	14.0 .23 6	.00	--	231 189	142 18	0.4	
06/19/74 1240	5050	46N/02W-13P01 54.0F 12.2C	M	7.1 450 448	--	--	--	--	--	--	--	9.7 .27	12.0 .19	--	--	--	--	143	
06/19/74 1345	5050	46N/02W-25R01 53.0F 11.7C	M	7.1 355	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1340	5050	46N/02W-25R02 53.0F 11.7C	M	7.1 300 306	--	--	--	--	--	--	--	1.4 .04	--	--	--	--	--	132	
06/19/74 1405	5050	46N/02W-26P01 53.0F 11.7C	M	7.7 185	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1400	5050	46N/02W-26Q02 54.0F 12.2C	M	7.0 300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/19/74 1430	5050	46N/02W-34Q01 52.0F 11.1C	M	8.1 145 8.3 150	13 .65 40	7.4 .61 38	6.9 .30 19	2.0 .05 3	0 .00	94 1.54 96	1.5 .03 2	1.0 .03 2	.6 .01 1	.00	--	105 79	63 0	0.4	T
06/19/74 1455	5050	46N/02W-36K01 53.0F 11.7C	M	6.9 350 8.1 368	23 1.15 31	24 1.97 54	10 .44 12	3.8 .10 3	0 .00	134 2.20 62	40 .83 24	2.7 .08 2	28.0 .42 12	.00	--	252 195	156 46	0.3	T
06/18/74 1715	5050	47N/02W-21H03 55.0F 12.8C	M	7.2 118	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06/18/74 1600	5050	48N/01W-28F01 83.0F 28.3C	M	8.4 205 200	--	--	--	--	--	--	--	5.4 .15	--	.20	--	--	--	9	
06/18/74 1540	5050	48N/01W-28J01 63.0F 17.2C	M	7.7 420 411	--	--	--	--	--	--	--	5.6 .16	--	.10	--	--	--	153	
06/18/74 1520	5050	48N/01W-28J03 59.0F 15.0C	M	7.6 580 7.6 559	--	--	--	--	0 .00	282 4.62 92	--	5.6 .16 3	18.0 .26 5	--	--	217	--	--	
06/18/74 1620	5050	48N/01W-31H01 57.0F 13.9C	M	6.9 495 8.0 482	34 1.70 38	26 2.14 47	14 .61 13	3.0 .08 2	0 .00	103 1.69 39	14 .29 7	29 .82 19	94.0 1.52 35	.00	--	337 265	190 108	0.4	T
06/18/74 1420	5050	48N/01W-36A01 81.0F 27.2C	M	8.4 340 8.0 337	6.2 .31 9	2.6 .21 6	60 2.61 75	13 .33 10	0 .00	190 3.11 90	1.2 .02 1	8.2 .23 7	5.6 .09 3	.20	--	222 190	26 0	5.1	
1-n4 SHASTA VALLEY																			
07/01/74 0835	5050	42N/05W-20F01 67.0F 19.4C	M	6.8 700 7.5 706	23 1.15 14	57 4.69 59	49 2.13 27	1.5 .04 0	0 .00	413 6.77 45	12 .25 3	31 .87 11	2.2 .04 1	2.00	--	400 381	293 0	1.2	
07/01/74 0815	5050	42N/05W-20J01 60.0F 15.5C	M	6.8 335	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

TABLE E-1 cont'
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					TDS SUM	TH NCH	SAR	REM
					CA	MG	NA	K	CO3	PERCENT REACTANCE VALUE				R	F	SI02							
										HC03	SO4	CL	NO3										
.....																							
1-04		NORTH COASTAL REGION SHASTA VALLEY																					
07/01/74 0930	S050	42N/06W-10J01	M	65.0F 14.3C	7.4	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1445	S050 S050	43N/04W-07M01	M	70.0F 21.1C	6.8 7.3	2500 2420	64 3.19 11	195 16.04 56	216 9.40 33	6.0 .15 1	0 .00	1260 20.65 72	3.6 .07	275 7.76 27	1.5 .02	5.80	--	--	1350 1386	963 0	3.0		
07/01/74 1225	S050 S050	43N/05W-02C01	M	53.0F 11.7C	6.3 6.4	224 227	13 .65 27	12 .49 41	17 .74 30	1.9 .05 2	0 .00	122 2.00 84	4.4 .09 4	9.4 .27 11	.9 .01	.10	--	--	154 119	81 0	0.8	T	
07/01/74 1015	S050 S050	43N/06W-15L01	M	56.0F 13.3C	7.3	615 599	--	--	--	--	--	--	--	10 .28	--	--	--	--	--	302			
07/01/74 0955	S050	43N/06W-21R01	M	60.0F 15.5C	7.3	480	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1100	S050	44N/05W-32C03	M	65.0F 18.3C	7.3	1020	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1530	S050 S050	44N/06W-15C01	M	74.0F 23.3C	7.6	590 624	--	--	--	--	--	--	--	27 .76	17.0 .27	--	--	--	--	280			
07/01/74 1040	S050	44N/06W-22K01	M	65.0F 18.3C	7.0	440	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1635	S050	45N/05W-06E01	M	62.0F 16.7C	8.4	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1555	S050	45N/06W-19E01	M	67.0F 19.4C	7.7	360	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1610	S050	45N/06W-22R01	M	64.0F 17.8C	8.3	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1550	S050 S050	45N/06W-27D02	M	60.0F 15.5C	8.3	580 573	--	--	--	--	--	--	--	20 .56	54.0 .87	--	--	--	--	225			
07/01/74 1710	S050	45N/06W-30E01	M	86.0F 30.0C	7.4	445	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
1-05		SCOTT RIVER VALLEY																					
07/02/74 1225	S050 S050	42N/09W-02B01	M	56.0F 13.3C	7.2	560 571	--	--	--	--	--	--	--	9.8 .28	--	--	--	--	--	293			
07/02/74 0715	S050	42N/09W-27K01	M	63.0F 17.2C	6.5	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/02/74 0755	S050	42N/09W-29A02	M	57.0F 13.9C	6.9	155	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/02/74 1045	S050 S050	43N/09W-02G01	M	62.0F 16.7C	7.3 7.7	410 418	46 2.30 49	26 2.14 46	4.4 .19 4	1.2 .03 1	0 .00	250 4.10 90	17 .35 8	2.0 .06 1	3.7 .06 1	.00	--	--	196 223	220 17	0.1		
07/02/74 0945	S050	43N/09W-08F01	M	58.0F 14.4C	6.3	115	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
07/01/74 1005	S050 S050	43N/09W-08M01	M	59.0F 15.0C	6.8	125 125	--	--	--	--	--	--	--	1.0 .03	--	--	--	--	--	53			
07/02/74 1205	S050	43N/09W-24F02	M	56.0F 13.3C	7.1	440	--	--	--	--	--	--	--	--	--	--	--	--	--	--			

TABLE E-1 cont
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					REM
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	H	F	TDS SUM	TH NCH	SAR							
1 NORTH COASTAL REGION																								
1-05 SCOTT RIVER VALLEY																								
07/02/74 0800	5050	43N/09W-29G02	M	77.0F 25.0C	7.7	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/02/74 0840	5050	43N/10W-11E01	M	58.0F 14.4C	6.8	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/02/74 1145	5050	44N/08W-33E01	M	57.0F 13.9C	6.8	600 613	52 2.54 38	47 3.87 57	6.8 .30 4	.7 .02 .00	0 .00	321 5.26 80	29 .60 9	6.8 .19 3	35.0 .56 8	.20	--	391 335	325 60	0.2	--	--	--	
07/02/74 1055	5050	44N/09W-34R01	M	73.0F 22.8C	6.8	295 298	--	--	--	--	--	--	--	2.7 .08	12.0 .19	--	--	--	--	146	--	--	--	
1-06 MAYFORK VALLEY																								
06/13/74 1245	5050	31N/12W-12L01	M	66.0F 18.9C	6.1	175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
06/13/74 1246	5105			66.0F 18.9C	6.1	175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
06/13/74 1225	5050	31N/12W-15K01	M	57.0F 13.9C	6.8	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
06/13/74 1225	5050			57.0F 13.9C	6.8	325 301	30 1.50 45	16 1.32 39	12 .52 16	.3 .01	4.0 .13 4	168 2.75 78	15 .31 9	11 .31 9	.8 .01	.00	--	174 172	143 0	0.4	--	--	--	
1-08 MAD RIVER VALLEY																								
09/05/74 1110	5050	05N/01E-04H04	M	61.0F 16.1C	7.9	470	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 0940	5050	06N/01E-07H01	M	60.0F 15.5C	6.3	520 541	--	--	18 .78 14	--	6.0 .20 4.49	274	--	28 .79	--	--	--	242	--	0.5	--	--	--	
09/05/74 0855	5050	06N/01E-08H01	M	58.0F 14.4C	5.9	180	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 1045	5050	06N/01E-19Q01	M	58.0F 14.4C	7.7	365 386	--	--	--	--	--	--	--	11 .31	--	--	--	176	--	--	--	--		
09/05/74 1025	5050	06N/01E-30N01	M	58.0F 14.4C	7.2	365	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 1010	5050	06N/01E-32F01	M	64.0F 17.8C	7.6	700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 0835	5050	06N/01W-01H01	M	56.0F 13.3C	6.1	205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
1-09 EUREKA PLAIN																								
09/05/74 1510	5050	05N/01E-18Q01	M	62.0F 16.7C	7.3	815 838	--	--	--	--	--	--	--	98 2.76	--	1.40	--	108	--	--	--	--		
09/05/74 1455	5050	05N/01E-20Q01	M	56.0F 13.3C	6.3	295	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 1315	5050	04N/01W-08P01	M	56.0F 13.3C	7.7	170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
09/05/74 1330	5050	04N/01W-17801	M	56.0F 13.3C	6.9	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

TABLE E-1 cont
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					REM
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	H	F	TDS SUM	TH NCH	SAR							
.....																								
1		NORTH COASTAL REGION																						
1-09		EUREKA PLAIN																						
09/06/74	5050	05N/01W-29Q01	H	60.0F	6.5	290	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1210				15.5C																				
1-10		EEL RIVER VALLEY																						
09/06/74	5050	02N/01W-04001	H	56.0F	6.7	570	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1000				14.4C																				
09/06/74	5050	03N/01W-05K01	H	64.0F	6.3	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1100				17.8C																				
09/06/74	5050	03N/01W-18A01	H	60.0F	7.3	475	--	--	--	--	--	--	16	3.8	--	--	--	--	--	--	--	--	92	
1045	5050			15.5C		484							.45	.06										
09/06/74	5050	03N/01W-30N01	H	56.0F	6.5	580	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
0750				13.3C																				
09/06/74	5050	03N/02W-13J01	H	56.0F	6.5	4800	--	--	--	--	--	--	1470	--	.10	--	--	--	--	--	--	1600	--	
1030	5050			13.3C		4840							41.45											
09/06/74	5050	03N/02W-35M02	H	56.0F	6.7	650	24	28	76	13	0	312	30	46	5.8	.10	--	387	176					
0825	5050			13.3C	8.0	698	1.20	2.30	3.31	.33	.00	5.11	.62	1.30	.09	--	--	376	0	2.5				
							17	32	46	5		72	9	18	1									
1-11		ROUND VALLEY																						
08/20/74	5050	22N/12W-06L02	M	60.0F	7.2	400	41	21	16	.7	0	254	.5	2.4	2.8	.10	--	234	187					
1025	5050			15.5C	8.1	401	2.05	1.73	.70	.02	.00	4.16	.01	.07	.05	--	--	209	0	0.5				
							46	38	16			97		2	1									
08/20/74	5050	22N/12W-19F01	M	60.0F	6.9	380	29	41	14	.6	0	280	28	4.3	2.2	.00	--	272	240				X	
1110	5050			15.5C	8.3	486	1.45	3.37	.61	.02	.00	4.59	.58	.12	.04	--	--	257	12	0.4				
							27	62	11			86	11	2	1									
08/20/74	5050	22N/13W-01J03	M	60.0F	7.3	225	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1020				15.5C																				
08/20/74	5050	22N/13W-13A01	M	76.0F	6.3	165	12	12	5.0	.2	0	105	1.6	1.9	1.5	.00	--	116	81				T	
1045	5050			24.4C	8.3	173	.60	.99	.22	.01	.00	1.72	.03	.05	.02	--	--	86	0	0.2				
							33	54	12			95	2	3	1									
08/20/74	5050	23N/12W-33L03	M	67.0F	7.2	585	66	29	29	.7	0	408	.5	1.4	3.6	.10	--	355	286					
0910	5050			19.4C	8.0	615	3.29	2.38	1.26	.02	.00	6.69	.01	.04	.06	--	--	331	0	0.7				
							47	34	18			98		1	1									
08/20/74	5050	23N/13W-25P01	M	60.0F	7.4	255	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
0935				15.5C																				
08/20/74	5050	23N/13W-36P03	M	62.0F	6.8	260	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
0950				16.7C																				
1-12		LAYTONVILLE VALLEY																						
08/20/74	5050	21N/15W-01L02	M	68.0F	7.2	440	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1340				20.0C																				
08/20/74	5050	21N/15W-12M02	M	66.0F	5.7	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1350				18.9C																				
1-13		LITTLE LAKE VALLEY																						
08/20/74	5050	18N/13W-08L01	M	63.0F	6.3	230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1445				17.2C																				
08/20/74	5050	18N/13W-20H03	M	59.0F	6.5	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1520				15.0C																				

Appendix F, "Waste Water Data", which appeared in certain volumes of the Bulletin No. 130 series, has been discontinued. For information regarding waste water, the reader is referred to the recently reactivated Bulletin No. 68 series: "Inventory of Waste Water Production and Waste Water Reclamation Practices in California".

